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The Sacred Art of Labyrinth Design: Optimization of a Liminal Aesthetic

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THE SACRED ART OF LABYRINTH DESIGN: OPTIMIZATION OF A LIMINAL AESTHETIC

By

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THE SACRED ART OF LABYRINTH DESIGN:

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By Yadina Z. Clark

Thesis Advisor: Dr. Owen F. Smith

An Abstract of the Thesis Presented
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Labyrinths, in their true, non-maze forms, have existed for thousands of years in numerous places around the world and there are similarities in the designs and uses of these figures despite geographic and cultural differences and the passage of time. They have served as spaces and symbols of contemplation, protection, and liminality. Global interest in labyrinths has ebbed and flowed, but there is something about these ancient symbols that keeps revitalizing that interest.

Prehistoric labyrinth markings and constructions were among the models for modern land artists to find inspiration and for some to emulate. Labyrinths have also been exhibited in galleries and created as non-land art, artistic installations. The research outlined in this paper focuses on labyrinth design and facilitation as a creative practice and attention to details that can help to ensure the greatest potential for a beneficial labyrinth experience. Information was gathered through the design and creation of ephemeral, temporary, and permanent labyrinth installations, internet and library research, informal interviews with owners, builders, and fellow labyrinth visitors, and visits to and documentation of over 50 permanent labyrinth sites in New England.

This paper touches on the physiological and psychological effects of meditative walking and provides an overview of both practical and esoteric elements that inform the labyrinth design process. In addition to new installations, some other outcomes that have resulted from this research include an interactive online map of over 200 labyrinths in New England and two simple formulas for accurately calculating the path length of both 3- and 7-circuit Classical labyrinths.

DEDICATION

To Mika and Emily

fellow labyrinth explorers

and loving daughters

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I am grateful to Jeff Saward (The Labyrinth Society) and Beth Mace (Labyrinth Guild of New England) for corresponding about my mapping project, to Erwin Reißmann, Lars Howlett, and Dr. Eisso Atzema for conferring about my path length formulas, and to Alex Champion for speaking with me about his work. Sincere appreciation is extended to the Rev. Dr. Duncan Newcomer for philosophical conversations over tea and such congenial partnership. Finally, I would like to thank Leigh Kelly-Monroe and Paul Monroe for that first spontaneous labyrinth adventure.

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CHAPTER ONE

INTRODUCTION

Throughout the world, everywhere and in every human epoch, peoples have marked the earth, scraped clear a reckoning place, considered a rock, a star, the sunrise, cleared a bit of underbrush in order to sit and look and think purposeful thoughts. In these places, people have chosen to be receptive to change, to transformation, to trance, reverie, and ecstasy.

-Maureen Korp

Labyrinths, in their true, non-maze forms, have existed for thousands of years. They have served as spaces and symbols of contemplation, protection, and liminality in various locations around the world with surprising similarity in their construction, despite the distances between the encompassing cultures, and considering the modes of transportation and communication that existed long ago. Most labyrinths have a clear boundary with a single entrance and a single path that meanders, without branching or crossing itself, until finally it arrives at the center, and the way out is usually the same path as the way in.

Liminality is an essential concept for understanding labyrinths and may be considered in terms of psychology, spirituality, architecture, landscape, natural cycles, and other areas. “Liminal” and related words have roots in Old French and Latin meaning limits, boundaries, borders, and thresholds. In the context of personal growth and spirituality, liminality can refer to opportunities for transformation, rites of passage, metaphysical exploration, spiritual communication, or changes in states of consciousness

or being. Liminal space and time exist at boundaries and provide some overlap, serving as bridges for transition. Labyrinths can serve as liminal spaces and can facilitate moments of liminality.

Over the past three years I have focused my artistic work on restorative, healing, and liminal aesthetics, from hand-held meditation tiles and finger labyrinths to walkable labyrinth installations, sacred circle dance, drumming, and permaculture gardens. [1] During this time, geometric and biomorphic explorations of labyrinth and mandala forms, archetypal symbolism, sacred geometry, physics, cosmology, permaculture design, frame drumming, and collaborative creativity have been of particular interest. I am fascinated by the interplay among the more obvious, practical aspects of labyrinth design, the more subtle, esoteric elements of sacred geometry and intention, and the impact and potential of sacred space. The activities and environments listed above have been shown to have beneficial effects on physiological, psychological, spiritual, and community well-being. Both creating and engaging these liminal spaces can provide opportunities for relaxation, meditation, creative flow, intuitive play, spiritual experience, community building, and fulfillment of the human yearning for meaning and belonging.

My work is intermedial, illuminating the intersections among a variety of arts, spirituality, psychology, peace and reconciliation studies, sacred space (built environment and ambiance), landscape architecture, and intentional community. I use the term liminal aesthetics to mean the look and feel of spaces that support psychological and spiritual liminality. This is somewhat different from how the term has been used in relation to experimental, eclectic, and intermedial performance theatre practices (e.g. Broadhurst).

[1] Permaculture is regenerative design for human habitats based on ecological and ethical principles.

My body of work reflects a progression of knowledge, understanding, technique, and philosophy through a process of research, exploration, experimentation, and installation. Some of the work has been private and minimally shared; some of it has been quite public. Two installations in particular stand out as very successful public collaborative sacred space projects: the *Labyrinth of Compassion* temporary installation for the first annual Belfast Peace Festival (September 2014) and the *South Orchard Garden Labyrinth* permanent installation at the Maine Organic Farmers & Gardeners Association (MOFGA) grounds (begun in June 2014). The MOFGA labyrinth was experienced by many people during the 2014 Common Ground Country Fair and has been visited by MOFGA staff and volunteers, as well as a class from Unity College. The Belfast installation was originally intended to remain in place only for the weekend of the festival. However, it had such an impact on the community that the labyrinth was maintained for five weeks and led to ongoing discussions of creating a permanent installation in Belfast.

Modern society, compared to older, indigenous cultures, does not typically offer as much opportunity for exploration of the sacred, nor regard for balancing intellect and intuition, nor integrating mind, body, and spirit. Labyrinths, which seem to have held a special significance in the spiritual lives of many people over thousands of years, became largely neglected along with the overall decline of sacred space due to the rise of "rationalism, humanism, and scientific methodology" over the last several hundred years (Lonegren 19). Over the past few decades, the labyrinth has been embraced again by people from a variety of backgrounds, including both spiritual and secular interest. This seems to be at the confluence of a critical mass of spiritual yearning and scientific

evidence supporting the benefits of meditative activities. As the Rev. Dr. Lauren Artress—a key figure in this labyrinth revival—states in *Walking a Sacred Path: Rediscovering the Labyrinth as a Spiritual Practice*, "The labyrinth, in its strange and uncanny way, offers a sacred and stable space to focus the attention and listen to the longing of the soul" (11).

As interest in labyrinths has regained momentum, there has of course also been an increase in the need for knowledgeable and skilled artists and facilitators to provide the spaces and opportunities for people to interact with labyrinths. As an emerging labyrinth artist and facilitator myself, I am researching how to maximize the beneficial potential of the labyrinth space and experience through the optimization of a liminal aesthetic.

CHAPTER TWO

CONTEXT

Certain kinds of symbolism constitute a universal language,
because the images and their meanings occur in similar forms—
and carry similar power—across cultures and centuries.
-David Fontana

Labyrinth carvings and constructions from hundreds to thousands of years old are found in numerous places around the world. There are similarities in the designs and uses of these figures despite geographic and cultural differences and the passage of time. Global interest in labyrinths has ebbed and flowed, but there is something about these ancient symbols that keeps revitalizing that interest. Contemporary installations are increasing in number. Before the decline of labyrinths in the Renaissance period, there had been a burst of creativity and design variations which led to an entirely new category of Medieval labyrinths.

Over the last fifty years and especially since the 1990s, labyrinths have had their most significant resurgence since those Medieval innovations including the addition of contemporary designs (Saward 10; Ferré 1). The benefits of the labyrinth experience are becoming increasingly noticed and documented, and people from different cultural and both religious and secular backgrounds are using and promoting labyrinths. Many books have been written about their history, typology, and use. Healthcare facilities and university campuses are incorporating labyrinths as spaces and tools for respite, relaxation, healing, introspection, and creative thinking. The world-wide prevalence and

longevity of labyrinths points to meaning and perhaps usefulness: a significance that we may not fully understand, yet many appreciate.

The labyrinth is an ancient, archetypal symbol that has taken numerous forms and shapes, yet the essential features remain the same: a bounded, interior space clearly demarcated and different from the ordinary, exterior area with a continuous though meandering path to the center and back out again, usually by the same path. A great variety of materials have been used to create labyrinths including stone, tile, grass, sand, earth, carved wood, and painted canvas. There are etched and mosaic labyrinths, finger and stylus labyrinths, and permanent, temporary, and portable walkable labyrinths.

These spaces are not only defined architecturally, but also choreographically. Those who enter are meant to follow the path through the complete, prescribed pattern of movement (Kern 23). This path is sometimes referred to as "Ariadne's thread," referring to the Greek myth of Theseus and his means of escaping the labyrinth after slaying the Minotaur. Some labyrinths may have been intended to outline even more literal choreography: the movement of a dance, game, or ritual.

Often confused or used interchangeably in the vernacular, mazes and labyrinths are actually different in several key ways. Mazes are multicursal; they have multiple paths with choices, dead ends, and a certain level of trickery and challenge. When three-dimensional, the dividing lines are typically walls or other structures such as hedges that make it difficult or impossible to see any other part of the maze. The history of mazes seems to be rooted in ancient fortifications—trying to keep someone out or in—then

garden entertainments in the Renaissance, fun diversions on paper or other materials, and modern tourist attractions.

Although the location in the myth about Theseus is sometimes referred to and pictured as a labyrinth, it is typically described as an elaborate, confusing structure meant to contain the Minotaur. There is much speculation about whether a complex of buildings or something else inspired the story. Either way, it is more accurately a maze rather than a labyrinth, according to a scholarly interpretation of these terms. Similarly, "turf mazes" are actually labyrinths.

True labyrinths are unicursal—meaning that they have a single path—and are usually intended to provide a meditative, reflective, and/or spiritual experience. The path may wind back and forth repeatedly, but there is no intended confusion and usually nothing blocking the view. Some contemporary labyrinth designs incorporate features outside of the standard form of historical labyrinths such as multiple entries/exits, absence of a center space (e.g. a simple meander), intersections and path choices, or dual paths for ceremonies or conflict resolution. Nevertheless, they may still be considered labyrinths, rather than mazes, due to the intended use and effect of the design.

Unlike Neolithic cup-and-ring stone carvings which could be interpreted as direct expressions of natural shapes such as observable geological or astronomical phenomena, ancient labyrinth designs, conceivably inspired by natural shapes such as spirals, do not strictly correspond with anything in nature. Yet they can still be interpreted as symbolic representations of the movement of the planets, the intestines of a sacrificial animal, or a liminal journey such as birth. They certainly can be expressions of journeys in general,

especially in terms of pilgrimages as well as the psyche, the chakras, or other ways of understanding and guiding attention or movement through the internal workings of the human mind and spirit.

Labyrinths are among the ancient petroglyphs etched into stones and the interiors of caves. In their stone-lined path or earthworks forms, labyrinths are related to geoglyphs, petroforms, and effigy mounds such as the Great Serpent Mound in Ohio and El Puma Yacente in Peru. Categorized with more contemporary constructions, earthworks labyrinths in particular can be considered a type of land art similar to Robert Smithson's Spiral Jetty on the shore of Great Salt Lake in Utah (1970). Since labyrinths can be constructed in so many different ways, they can be associated with numerous art practices such as mosaics, pottery, basketry, landscape design, and more. Labyrinths have been used in multiple contexts from literary motifs to coats of arms to spiritual practices. For the purposes of this research, I have focused primarily on permanent, outdoor labyrinth installations, their designs and physical features, and the beneficial effects of their use.

Land Art

I first discovered labyrinths because of my interest in environmental art and earthworks. During a perusal of well-known artists and works from the land art movement, initially focusing on the late 1960s and 1970s, I came across an image of an earthworks labyrinth created by Alex Champion (b. 1940) and was captivated. There was something so appealing about the merging of natural materials and constructed space, and the choreographed movement within the embrace of the land. This kindled a focus and

passion in my work that has not diminished in the three years since then. Only a few months after learning of contemporary permanent labyrinths, I had the opportunity to walk one at Sirius Community, a well-established intentional community in western Massachusetts, which I had visited before as part of my research for my undergraduate capstone paper on ecovillages. This was a very satisfying, coming-full-circle moment.

In a way, one could say that land art is quite ancient. The Nazca lines in Peru (which include a labyrinth) and many other marks left by prehistoric peoples are found around the world. There are geoglyphs, megaliths, petroglyphs, and petrographs from hundreds to thousands of years old. It is difficult to determine in some cases what the exact purposes of these markings were, but it is at least evident that humans have long found meaning in deliberately altering or enhancing particular places. Ancient labyrinth markings and constructions were among the models for modern land artists to find inspiration and for some to emulate.

The beginnings of modern land art coincided with the timing of, and for some artists, the motivations for, the environmental movement especially in the United States and may be considered part of a broader category of environmental art. The term ecological art typically indicates the work of artists who specifically wish to address environmental issues. Along with many other cultural shifts of the 1960s and 70s, there were efforts to move art out of the gallery into more natural surroundings, use natural materials, and bring attention to and foster a healthier and more sustainable relationship with the land. Not all land artists are ecologically or politically motivated, but land art does tend to at least encourage and facilitate a different view of the land and sometimes astronomical features. Numerous land art constructions play with perception of space and

time and some are aligned with key locations such as the cardinal directions, solstice and equinox points, constellations, underground water, geomagnetic energy, and/or ley lines. This is also true of many labyrinth installations.

Belief Systems

Other relevant and related developments in this same time period include greater personal spiritual awareness, exploration of sexuality and gender, the rise of feminism, and a resurgence of interest in ritual and goddess culture. In the following decades, two distinct yet related subgroups became apparent in the labyrinth movement: Christian church-based proponents of the labyrinth as a spiritual practice and earth-based spiritual practitioners including unaffiliated individuals, pagans, Wiccans, and others.

This joint appreciation of the labyrinth experience has caused concern and backlash from some Christian groups. This is not an isolated issue in contemporary culture and artistic practice. For example, Dawn Perlmutter and Debra Koppman note "the struggle between monotheistic and polytheistic doctrines" illuminated by postmodern spiritual art as well as censorship as "a manifestation of a conflict over religious ideology" (2).

However, many people feel that the labyrinth is a framework for whatever beliefs and intentions an individual brings to it, rather than imposing a set of beliefs on participants, as well as common ground to be shared by people of differing faiths. On the other hand, while some labyrinth walks are fairly neutral or ecumenical, a labyrinth may be constructed, or a walk facilitated, in a particular way which would not be comfortable for everyone. A pagan might not be eager to walk a labyrinth in a Catholic cathedral or a

conservative Christian could be uncomfortable walking a labyrinth featuring standing stones and numerous crystals.

Physiology and Psychology

Regardless of anyone's personal beliefs, there are beneficial effects that everyone can obtain from the simple act of walking a labyrinth and rituals can be secular, rather than exclusively religious or spiritual. Scientific research has shown that meditation in general provides physical health benefits. Walking meditation has also specifically been studied. For example:

> Herbert Benson, MD, president of the Mind/Body Medical Institute, Harvard Medical School, has found that focused walking meditations are highly efficient in reducing anxiety and eliciting what he calls the "relaxation response." This effect has significant long-term health benefits, including lowering blood pressure, slowing breathing rates, reducing incidents of chronic pain, and reducing insomnia. (qtd. in Zielinski 4)

Additional research has been done specifically around the labyrinth experience and what has become known as the labyrinth effect:

> It appears that walking or otherwise interacting with the labyrinth might enable a set of physical responses (increased calm. quiet, and relaxation; decreased agitation, anxiety, and stress) that allows for the emergence of a set of "state of mind" responses (increased levels of centeredness, clarity,

> openness, peace, and reflection). In turn, these "state of mind" responses might increase one's receptivity to flashes of intuition, hunches, nudges from one's "inner voice," and other types of insight regarding one's problems, issues or concerns. (Rhodes 36)

In an EXPLORE Journal of Science and Healing article, M. Kay Sandor refers to the labyrinth as "a tool to create ritual and begin to develop a personal practice for meditation and healing" (483). The labyrinth has also been described as "a unique tool for enhancing creativity and problem-solving processes" (Marquart), "a form of psychoneuroimmunology" (Nicolson 296), "an intuitive playground for the spirit" (Harris), and "a fitting metaphor representing these personal passages we travel, as well as being an appropriate symbol that creates a sacred space for enhancing psychological and spiritual growth" (Peel 288).

One's experience of walking or tracing a labyrinth may be similar to or different from others' or one's own previous experiences. Labyrinths may be used as a daily or occasional personal activity, a "behavioral technique" and "sociometric device" (Peel 290), and a means to "reduce stress, to relax and cope, and to manage grief and loss" (Sandor 480). Many hospitals have permanent or temporary labyrinths available to patients and their loved ones, as well as staff. In addition to personal meditative use and stress relief, some modern designs are created to provide space for a specific purpose such as conflict resolution or marriage ceremonies. This provides a different sort of healing and ritual environment at a community or societal level.

A relevant and well-established psychological concept is attention-restoration theory first developed in the 1970s by Stephen and Rachel Kaplan who built on William James' descriptions of two different types of attention: directed attention and fascination. The Kaplans determined that "too much directed attention leads to what they call 'directed-attention fatigue,' marked by impulsive behavior, agitation, irritation, and inability to concentrate" (Louv 102). Certain environments that trigger fascination—a more automatic attention—can provide relief from directed attention. Natural and meditative surroundings, including walkable and finger labyrinths, can provide this restorative effect (Louv; Harris).

The labyrinth's psychological effects also seem to stem from the very simple, yet powerful, ancient symbolic building blocks such as circles, squares, and spirals. Jungian psychology provides some understanding of the significance of these symbols; they appeal to the archetypes of the collective unconscious, which Fontana describes as "the seat of those instinctive patterns of thought and behavior shaped by millennia of human experience into what we now recognize as emotions and values" (14).

Symbolism and Sacred Geometry

Symbols are ubiquitous in human cultures. They can express and appeal to mind, emotion, and spirit, representing realities or intangibles, summarizing wordy concepts, or providing portals to spiritual power or psychological insight. Certain numbers, proportions, and geometric shapes can symbolize spiritual ideas or be considered manifestations of the underlying mathematical principles of the cosmos. Many symbols—including labyrinths, mandalas, medicine wheels, and other related figures—

combine basic shapes to assemble their final form. The three foundational shapes most often incorporated in labyrinths are circles, squares, and spirals.

In a variety of traditions circles are associated with one or more of the following: unity, wholeness, and infinity; the element of spirit; life; motion; female; beginning; potential; the heavens; and the cosmos. Squares can stand for the earth, the four cardinal directions (north, east, south, west), the four seasons (winter, spring, summer, autumn), or the four prime elements (fire, earth, air, water). Spirals may represent any of these: cosmic force; cycles or revolutions of time, stars, planets, and nature; expansion or contraction; or journeying. Spiral direction is sometimes ascribed significance such as building or releasing energy.

A significant element of symbolism in labyrinth design seems to be the transformation of a square into a circle which represents, and perhaps literally facilitates, connecting the earthly with the cosmic or godly. This can be seen in the drawing of a circular Classical design from the square seed pattern or in the square bottom and domed top variation of the Classical design. It is important to note again that a labyrinth experience does not expressly require any specific religious meaning or connection or even spiritual intent. However, for those so inclined, the labyrinth can incorporate a great depth of symbolism and spiritual practice.

As with many ancient sacred sites, contemporary personal and community sacred spaces can be constructed according to principles of sacred geometry, geomancy, and intuitive design and/or incorporate symbols, stones, statues, or other meaningful objects

placed at significant points in the design. The artistry of labyrinth work is in both the construction details and the ambiance and flow of the space when in use.

Labyrinths as Art

There are labyrinth designers and builders who do not market themselves as artists. However, some do consider themselves labyrinth artists and present their work as art. Additionally, there are artists who do not regularly create labyrinths, but who have included them at some point in their work. There are also numerous artists and craftspeople creating labyrinth-related items, but my focus here is on installations.

Several land artists have created labyrinths, including Richard Long, Robert Morris, and Bill Vazan in the 1970s (Lippard 154; Malpas 106) and Andrew Rogers in 2008. Alex Champion does not refer to himself as an artist, yet he has spent over 25 years building labyrinths including about 45 earthworks and in 2000 he initiated The Art Line project: a swath of land along the 39th parallel encompassing walkable art locations from California to New Jersey including four of his own labyrinths in California (Champion).

Labyrinths have also been exhibited in galleries and created as non-land art, artistic installations. As an example, Kathy Gillis and Carolyn Davis presented a joint exhibit in 1993 of 54 ceramic wall labyrinths with a 30′ diameter, walkable labyrinth on the floor of Galerie Montcalm in Hull, Québec (Korp 15-16). Most, if not all, labyrinth artists intend for audience participation and sometimes specific kinds of social engagement. An example of this is Patricia Swannell's *Unexpected Endings* at the Kew Royal Botanical Gardens near London. The center of the labyrinth features a bronze

image of a seed pod and in the surrounding area visitors encounter signs related to the nearby Millennium Seed Bank ("New Labyrinth").

In some cases, artists may serve as facilitators or modern shamans,[2] depending on their own intentions, beliefs, and skills. Anticipating the audience experience is sometimes part of the creative process for artists, but some employ forethought and attentiveness beyond that type of relationship to the extent of supporting spiritual and intuitive exploration and expression, and creating sacred space and opportunities for introspection. Also, as part of the modern labyrinth movement, training has become available to individuals interested in facilitating labyrinth walks.

The term "labyrinth" continues to be applied in some cases to mazes, which also make occasional appearances as artistic installations. A playful example of this is the 2015 *Tribute to Flux-Labyrinth* which revisited, and in some sections recreated, the original 1976 installation conceived and constructed collaboratively by several Fluxus artists including George Maciunas, Ay-O, and Nam June Paik (Lescaze).

Perhaps the most well-known recent public installation is artist Mark Wallinger's 270 enamel plaque labyrinths, a unique one in each London Underground station. Wallinger received the commission from Art of the Underground to commemorate the 150th anniversary of the tube in 2013. This group of labyrinths in this particular setting has resulted in a new twist on the pre-existing "tube challenge" where people try to pass through every one of the 270 stations in the shortest amount of time.

[2] As Mark Levy remarks in *Technicians of Ecstasy* about some performance artists, "Their performances do not reflect the art of traditional shamanic cultures, and they may not think of themselves as shamans, but they employ shamanistic techniques to enter non-ordinary reality" (221).

In addition to labyrinth artists/designers/builders including Champion, Wallinger, Robert Ferré, Lisa Gidlow Moriarty, and Lea Goode-Harris, I have been interested in the work of other artists whose installations are not necessarily labyrinths, but have what strikes me as a related flowing and meditative quality. In particular, I have been inspired by the ephemeral works of Motoi Yamamoto (salt), Andres Amador and Jim Denevan (sand), Simon Beck (snow), and Patrick Dougherty (sticks).

CHAPTER THREE

METHODS

Research is formalized curiosity. It is poking and prying with a purpose. It is a seeking that he who wishes may know the cosmic secrets of the world and they that dwell therein.

-Zora Neale Hurston

I have gathered information through internet and library research, site visits, and informal interviews with owners, builders, and fellow labyrinth visitors. The Labyrinth Society website was particularly useful for understanding an existing, internationally-used classification system for types of labyrinths; Hermann Kern's book *Through the Labyrinth: Designs and Meanings Over 5,000 Years* is by far the most comprehensive history of labyrinths available; and Robert Ferré's booklet *Planning for Labyrinths* provided many details concerning design and construction considerations.

My creative practices have provided additional research opportunities and refinement of philosophy and technique through experimentation, hands-on exploration, design, construction, and communication with others about my work. I have also further developed my skills and understanding of labyrinths, ritual, and group facilitation through an apprenticeship with the Labyrinth Guild of New England and a six-month frame drumming and spirituality course with members of Inanna: Sisters in Rhythm.

Due to the extensive variety of possibilities when considering creating a labyrinth installation, I thought that it would be helpful to survey existing labyrinths and note the choices made and how it felt to walk each unique combination. I began looking for labyrinths in New England to gain more first-hand experience and knowledge.

Walking some of these regional labyrinths has been an artistic, spiritual, and community-building practice. I took digital photographs of each site and recorded notes about the design, materials, setting, ambiance, and other features. A complete list of the 54 sites that I have visited over the past three years in provided as an appendix. In addition to these permanent, outdoor labyrinth sites, I was also able to experience a painted canvas labyrinth during the Labyrinth Guild of New England apprenticeship, as well as an intriguing, innovative temporary installation, *labyrinth VII*, by Amy Stacey Curtis which was part of her 2014 biennial solo exhibit *MATTER*.

My creative practices have encompassed personal explorations and public installations, electronic tools and natural materials, solitary work and collaborative projects. The overarching theme has remained constant: exploring introspective experiences and creating liminal spaces. Not all of these spaces are large and outside, like the walkable labyrinth installations. Some of them can be held in the hand or used on a table such as meditation tiles, finger labyrinths, and tactile meditation boxes.

Since childhood, I have been enchanted by pathways and have enjoyed mowing, shoveling, snowblowing, raking, or otherwise creating tracks, paths, mazes, and now labyrinths. Garden paths and bed design have been an important part of my process as well. I first started experimenting with 2D and 3D computer modeling to translate my sketches of mandala garden ideas into a more easily and precisely measured medium. These skills have turned out to be invaluable in my labyrinth design process and preparing for large permaculture and labyrinth installations.

As I mentioned previously, I was drawn to the ephemeral works of several artists and decided to experiment with that myself. I have created mandalas and labyrinths in both snow and sand. These provided a meditative exercise for myself as well as a performative aspect to the ones in public areas. Passersby seemed intrigued and delighted by my efforts and easily recognized the spaces as something out of the ordinary.

I first started experimenting with temporary labyrinths as a learning tool for myself. I used a small cork board, string, and push pins to try out different designs and to become both more visually and physically in tune with the flow and interrelationships of the walls and paths. Eventually, I graduated to two 2′ x 2′ boards and a collection of stones which allow for design experimentation as well an instructive and enjoyable group activity which I have led on several occasions. This led to further developments with laser-cut templates and wooden boxes with a layer of sand.

In 2012, I acquired a spool of rope estimated to be about 600′ in length. I wanted to experiment with walkable labyrinth forms and also have an effective way of creating temporary labyrinth installations. This rope became the primary component of my "portable labyrinth kit" which also includes tape measures, stakes, rods, and a custom pivot apparatus given to me by a labyrinth project collaborator in exchange for my design and installation work. Most of these items are kept in a 50-gallon mobile job box (a heavy-duty bin with wheels) which has traveled with me across the state for temporary installations as well as early stages of permanent labyrinths.

The site visits, various temporary labyrinth iterations, readings, and conversations with other labyrinth enthusiasts have all contributed to an accumulation of knowledge

which informs my design decisions and construction methods for my permanent installations which are detailed in my portfolio. I have found that there are both practical and esoteric elements that can be combined for an effective labyrinth design.

CHAPTER FOUR

DESIGN ELEMENTS

There are several practical considerations when preparing to install a labyrinth such as design (i.e. labyrinth type), location, and materials, as well as more esoteric elements such as orientation and symbolism. Thought can also be given to signage, facilitation, and suggestions for walking the labyrinth.

Typology

There are numerous labyrinth designs, ancient through contemporary. Categorization of these labyrinths is an ongoing and evolving effort which will likely continue to change as more innovations are added and as analytic discussions proceed among those with interest and knowledge. In addition to the various books that explain different designs (especially Kern and Saward), there are two particularly notable online resources for easily understanding current labyrinth typology: *The Labyrinth Society* "Types of Labyrinths" and *Labyrinthos* "Major Categories" pages. Andreas Frei's website (labyrinth-muster.ch) has an impressive catalog with a more extensive and detailed breakdown by path analysis.

Additional classification has been done recently by Lars Howlett, building on the work of Jeff Saward and Sig Lonegren, and inspired by Wallinger's mass art installation in the London Underground (see fig. 1). In the past few months, Frei has posted some thought-provoking blog entries—on *blogmymaze.com* which he co-authors with Erwin Reißmann—about the inconsistencies in terminology and groupings in current typology.

Just as labyrinth design itself has had periods of innovation, we may be in the midst of a significant shift in the classification of designs.

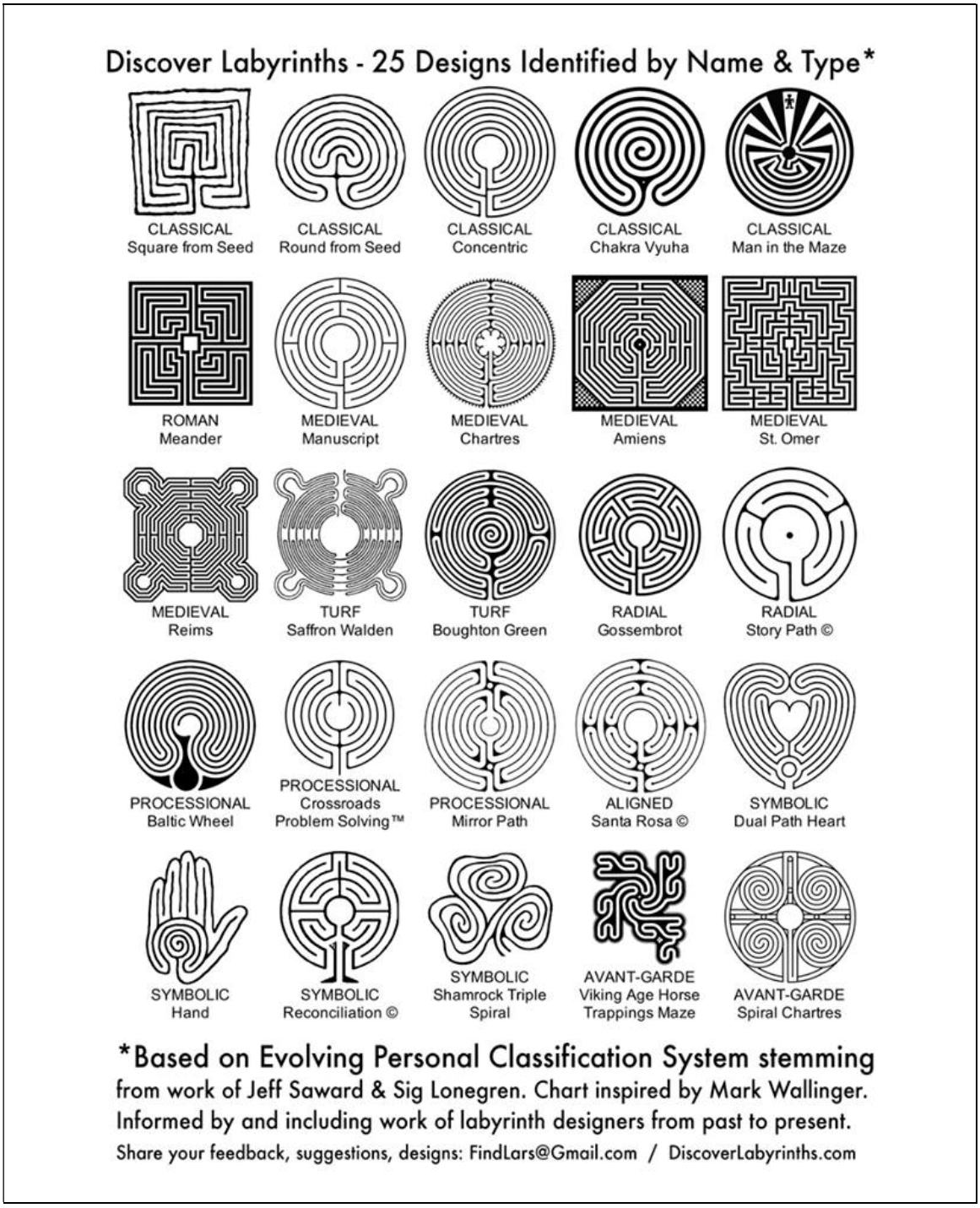


Figure 1. Labyrinth Chart. Most recent major classification advancement. Source: Lars Howlett, DiscoverLabyrinths.com, 31 Jan. 2015.

There are two designs that have been heavily favored over the past few decades in the surge of interest in the U.S.: the Classical and the Chartres. The Classical is sometimes called Cretan because of its association with the Minotaur myth and its appearance on ancient Cretan coins as early as 400 BCE, but it actually dates back to at least 1200 BCE in the Mediterranean area (Saward 41-2; Kern 73). It has been found historically in round and square forms, most often with seven circuits, throughout Europe, North Africa, India, Indonesia, and to a lesser extent in the American Southwest and South America. The Chartres, an ornate Medieval type, is based on the labyrinth in the floor of the Cathedral of Our Lady of Chartres, a medieval Roman Rite Catholic cathedral in Chartres, France. The Classical type tends to be simpler with fewer changes of direction, while Medieval labyrinths are more complex and have more changes of direction (see fig. 1).

Several terms important to any discussion of labyrinth design include circuits, path sequence, and seed patterns. In a labyrinth, there is only one path, but it winds back and forth repeatedly, pivoting around the center. Each pass at a particular distance from the center is considered a circuit and they are numbered from the outside in toward, but not counting, the center. The examples below each have seven circuits (see fig. 2).

All three of these labyrinths are considered left-hand designs since the first turn upon entering the path is to the left. As mentioned on the Labyrinth Society website, "Jeff Saward estimates that approximately two-thirds of the ancient Classical labyrinths were right-handed and two-thirds of the modern Classical ones are left-handed." I speculate that the shift to more left-handed Classical labyrinths might be related to the popularity of the Chartres labyrinth which is left-handed.

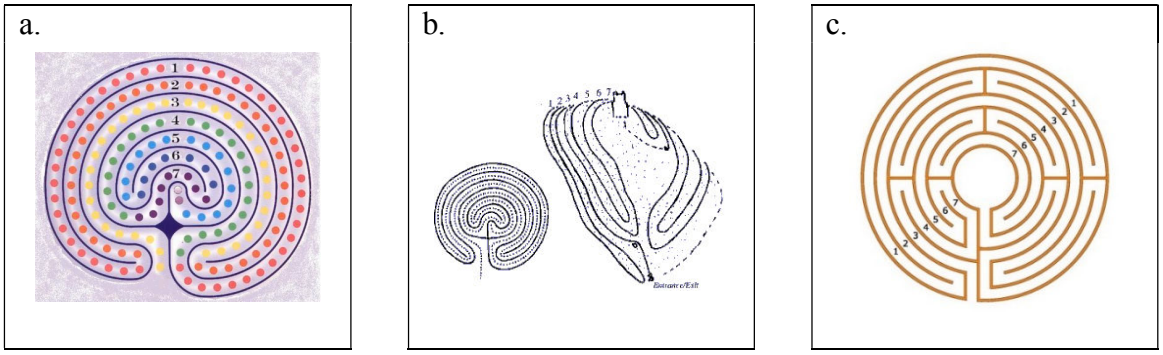


Figure 2. 7-circuit Labyrinths. a) Left-hand, 7-circuit Classical, Rainbow Path/Chakras variation. Source: Labyrinthina. b) Left-hand, 7-circuit, 3-dimensional Classical, Glastonbury Tor. Source: Jones. c) Left-hand, 7-circuit Medieval, "Heart of Chartres" (circuits 3-9 of the 11 in the full Chartres). Source: Reißmann.

In the examples above, you can see that there are seven path rings around the center of each labyrinth and also that the circuits are not walked in order. This is why path sequence is used as another tool for understanding and communicating about labyrinth designs. In each of these examples, the path is entered at the third circuit. Figures 2a and b are both Classical with a path sequence of 3-2-1-4-7-6-5 while figure 2c is a more complex Medieval design with a path sequence of 3-4-7-6-5-6-7-6-5-4-3-2-1-2-3-2-1-4-5.

In general, some labyrinth turns move the path from one circuit to another one directly next to it. Other turns move the path to a circuit three or more circuits away, creating nested turns. Labyrinths are often entered at the third circuit (e.g. Classical) or fifth circuit (e.g. Chartres) due to passing a single turn (two circuits) or a nested turn (a set of four circuits). Similarly, the center of the labyrinth is often entered from three or five circuits away, providing symmetry in the overall design. There are other variations, of course, but these are the most common. Other combinations of turns and path sequence

can be successful, but entering the labyrinth at the first circuit or entering the center from the innermost circuit do not seem to be as effective, comfortable, or attractive.

Most ancient Classical labyrinths have a center that is the same width as the path. While this looks fine as an etching, it is not the most convenient situation for a walkable labyrinth especially for a group or even just an individual. The labyrinth is often said to be a three-part experience with time in the center being as important as walking in and out. A labyrinth that suddenly ends at a narrow cap does not encourage or facilitate taking a moment for reflection. Enlarged centers begin to be seen more in Medieval manuscript labyrinths and then walkable church labyrinths. In addition to this change, Medieval designs commonly incorporate the Christian cross by dividing the circuits into quadrants creating distinctive mid-circuit turns. There were some earlier designs, especially Roman mosaics, that utilized quadrants, but in a different way which will be explored below.

The Chartres is a particularly ornate variation of the Medieval labyrinths. In addition to the quadrants and many changes of direction, the Chartres features a rosette—six petals around an enlarged center—and a set of partial circles all around the outer edge of the labyrinth (see fig. 3). There is much speculation about the purpose of these markings including that they were used as a lunar calendar to help track the liturgical calendar. Consequently, they are often referred to as lunations. Sacred geometry, which was used in the design of many cathedrals and other architecture, is apparent in the proportions of the Chartres labyrinth design. For example, the center diameter is one fourth the width of the whole labyrinth (not including the lunations) and each side is divided into 11 parts which are divided into 11 parts each: nine parts per path and two parts per line.

a.

b.

Figure 3. Chartres Labyrinth. Source: Labyrinthos. a) Chartres Cathedral, France. b) Stone by stone plan of the Chartres labyrinth by Jeff Saward.

Seed patterns give the key points and turns in order to draw the "walls" of a design. For example, a 7-circuit Classical labyrinth can be drawn from the seed pattern below (see fig. 4a). Connecting the points by moving to the right will result in a left-hand labyrinth. Drawing to the left will give you a right-hand labyrinth. Other seed patterns would give the basis for additional, different designs (see fig. 4b).

This short-hand for transmitting the knowledge of how to create a Classical labyrinth may be responsible for the widespread dissemination and accurate preservation of the pattern across such long distances over thousands of years despite differences in languages and absence of literacy (Saward 18). Seed patterns will be mentioned below, but not in great detail. The Labyrinth Society website, Reißmann and Frei's blog (blogmymaze.wordpress.com), and Frei's labyrinth website (labyrinth-muster.ch) all provide in-depth explorations of designs, seed patterns, and other details.

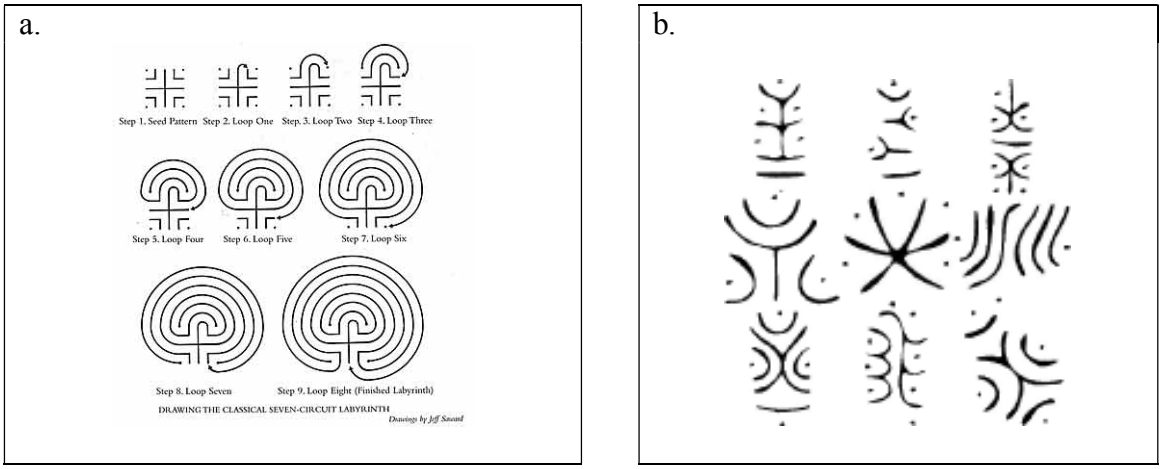


Figure 4. Labyrinth Seed Patterns. a) Classical labyrinth from seed pattern by Jeff Saward. Source: Mid-Atlantic Geomancy; Web; 2 Oct. 2013. b) Other seed patterns. Source: The Circle Gate, 2013; Web; 2 Oct. 2013.

Most labyrinths have a single path that winds its way to the center, and you exit by reversing direction and retracing your steps. There are some, however, such as the Baltic Wheel type, which have a second, often much shorter and direct, route into/out from the center. Even with similarities in design, and the recurrence of the Classical and Chartres designs in particular, each labyrinth is unique depending upon the setting, materials, width of the paths and walls, and the energy or ambiance of the space.

According to the Labyrinth Society website, labyrinths are typically grouped in the following categories with variations within each type: Classical, Medieval, and Other (including contemporary labyrinths, meanders, and miscellaneous designs). In contrast, the Labyrinthos categories are Classical, Roman (which the Labyrinth Society includes in the Classical family), Medieval, and Contemporary. The more recent, emerging typology specifies Classical, Roman, Medieval, Turf, Radial, Processional, Aligned, Symbolic, and Avant-Garde design categories with a total of 25 types (e.g. CLASSICAL Square from Seed, CLASSICAL Round from Seed, CLASSICAL Concentric, etc.).

Classical

True classical labyrinths are a distinctive type with long sweeping circuits and a shape that is noticeably not perfectly circular and often described as a mushroom or brain shape. There are multiple radius points to form the curves (see fig. 5a). The most common version of this type is the 7-circuit. However, this design can be reduced to three circuits or expanded to 11, 15, or more circuits, although these versions are not as common. The number of circuits typically changes in increments of four due to inserting or removing a set of nested turns as mentioned above.

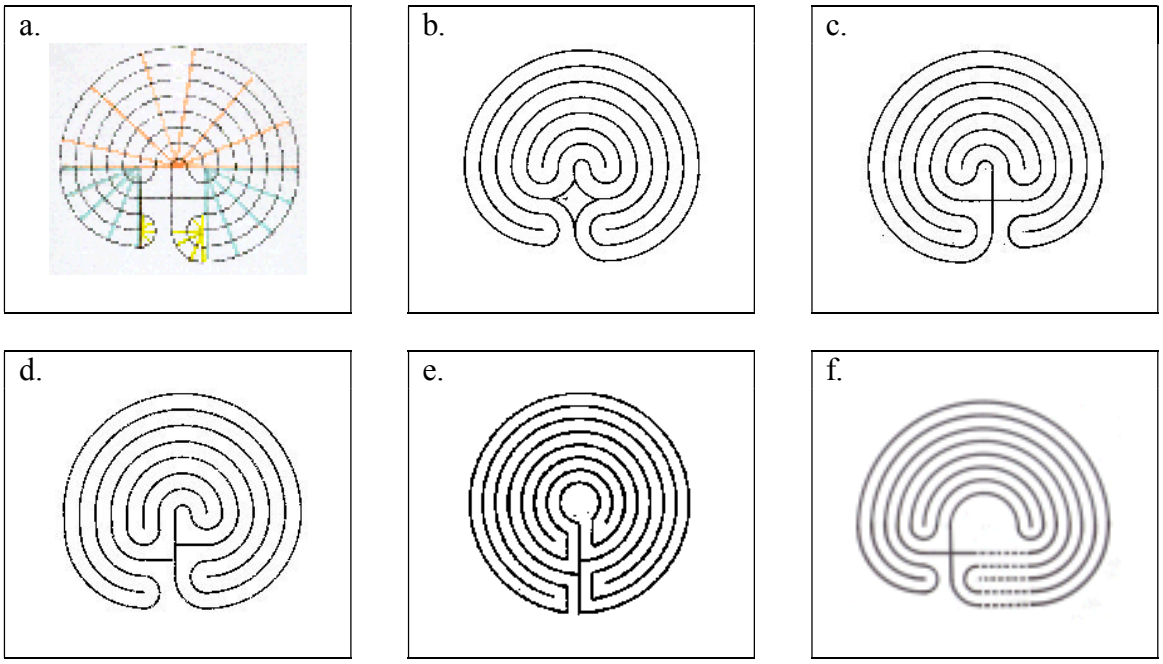


Figure 5. Classical Labyrinth Variations. Source: Labyrinth Enterprises. a) Multiple radius points. b) Diamond seed. c) Cross seed. d) Modified seed, rounded. e) Modified seed, concentric. f) Enlarged center and straight extensions.

The Classical seed pattern begins with a diamond or cross (see fig. 5b and c). A labyrinth that seems like a Classical, but does not have the cross or diamond, may have been modified either deliberately or in error, often to make the design more circular (see

fig. 5d and e). Enlarging the center of a true Classical labyrinth is usually accomplished by inserting straight extensions between arcs opposite the entrance (see fig. 5f).

The Classical category includes several subtypes including Concentric, Baltic, Chakra-vyuha, Penti, and Roman. A particular 11-circuit Concentric design, the Otfrid Labyrinth, is thought to be a key connection between the Classical and Medieval designs. Roman labyrinths are divided into quadrants with a particular type of movement—a Classical variant, meanders, serpentines, or spirals—completed in each quadrant before being repeated in its entirety in the next one. This differs from how quadrants are traversed in Medieval labyrinths which use half- and quarter-circle arcs to complete only part of a quadrant before moving on to another and coming back again repeatedly.

Medieval

These labyrinths are found in manuscripts, churches, and cathedrals, and as turf mazes. The Chartres design is the most well-known and most frequently used design of this type. A variety of Medieval designs have been used in contemporary construction including obscure designs from manuscripts, new variations, and simplified versions of the Chartres design. This has resulted in a subcategory of neo-Medieval designs.

Medieval designs are more complex than Classical labyrinths due in part to the changes in direction within the circuits rather than just at the ends of each arc. These turns result in distinctive breaks in the circuits known as labryses, or two-headed axes, an ancient tool and symbol associated with strength and creation. Multiple sources speculate that the word labyrinth, originally labyrinthos, comes from the place (-inthos) of the double axe (labyrs) which can be associated with both goddess culture (ritual spaces) and

the Minotaur myth and Cretan history (the palace of Knossos). However, this might be questioned since labryses as a labyrinth feature came about due to the addition of turns in the Christian Medieval designs.

The general Chartres subtype is usually round, occasionally octagonal, and most often has eleven circuits. There are a number of Chartres-inspired designs, mainly from the current revival, which have been simplified to fewer circuits, most often seven. Some of these, such as Robert Ferré's "Petite Chartres," include a central rosette and some lunations (fewer than the original due to the overall smaller size). Others do not and might be considered neo-Medieval.

Other

Some contemporary designs utilize multiple pathways, potentially continuous circuits, or other features that do not fit within the usual labyrinth typology. However, the spirit of the design, the intention for the experience of walking the labyrinth is the same; these are still meant to be labyrinths, rather than mazes or simply walking paths.

Shapes and Movement

Many of the labyrinth types listed above can be modified into different shapes. This might be done simply to work around a support column in an indoor space or trees in an outdoor setting, or it could be done to shift from a round to a polygonal shape, for example. Labyrinths are most often seen as circular (or asymmetrically rounded, in the case of true Classical labyrinths) or square, and sometimes octagonal. Some modern labyrinths are a circular painted shape on an octagonal piece of canvas. A few historical

designs and numerous contemporary designs take other shapes such as a triangle, triskelion, heart, butterfly, etc.

Meanders, serpentines, and spirals are related to, but on their own are not usually considered, true labyrinths. There are some designs based solely on these elements, however they are usually pieces of a larger design, especially in the Roman subcategory. Significance is sometimes ascribed to clockwise or counterclockwise movement on the way in or out as provided by spiraling in a particular direction, for example. However, labyrinths in general do not continue in one direction; they repeatedly change direction.

Additional Design Considerations

In addition to choosing a labyrinth type, number of circuits, and path direction, there are several more aspects to consider in the process of installing a labyrinth. These include the setting, location, orientation, thresholds, symbolism and intention, dimensions, accessibility, materials, and cost.

Setting

Setting is an important consideration because of how it can affect all of the other aspects. For example, the intended use, number of people who might access it over time or use it at one time, aesthetic standards, regulations, and funding will vary depending on where the labyrinth will be. It might be used for rituals and ceremonies or simply meditative walking. It could be for small-scale, personal use or large groups. Labyrinths can be found at private homes, churches, counseling and healthcare settings, prisons, parks, retreats, schools, colleges, and universities.

Location

Within each setting there are a number of possibilities for where a labyrinth could be located. They can be indoor or outdoor, private or public. They might be in a secluded place meant to provide a space with little noise and distraction or a more visible location in order to attract more use. Choosing a location is sometimes tied to maintenance considerations. A labyrinth in a wooded area will need less maintenance than one in a grassy area, for example. The placement of the center or entrance may be the determining factor for location based on the inclusion of an existing tree, rock cairn, or other feature.

Orientation

Orientation, that is, what direction the entrance is facing, or what direction the walker is facing when entering the labyrinth, can be based on a few different factors such as convenience, symbolism, dowsing, or intuition. A person might simply want to walk out their back door across a part of the yard and easily enter the labyrinth. Another person might be more concerned with aligning the design with the cardinal points or having the entrance in a particular direction for symbolic or traditional purposes. Some people use dowsing, Feng Shui, or simply intuition to find the position that feels right or best suits the particular area intended for the labyrinth.

Threshold

Some labyrinths have a pause stone, standing stones, or some other indication of a threshold. A pause stone (my term for a flat stone or tile at the entrance to a labyrinth) marks the beginning of the path and invites the person heading into the labyrinth to take a

moment to center themselves, calm their thoughts and breath, or otherwise acknowledge the special nature of the space they are about to enter. It can also be used upon exiting in order to savor the moment and integrate the experience before leaving the labyrinth.

Fontanelle

Depending on the design and seed pattern, a labyrinth may have an open space near the entrance between several turns (see fig. 6). This is a different space than the labryses or gaps where turns meet in other areas of a labyrinth. This is seen in some older designs including the Classical labyrinth from a diamond seed pattern, but in use, this may be largely a contemporary feature meant to accommodate a ritual or ornamental item such as a bowl or candle.

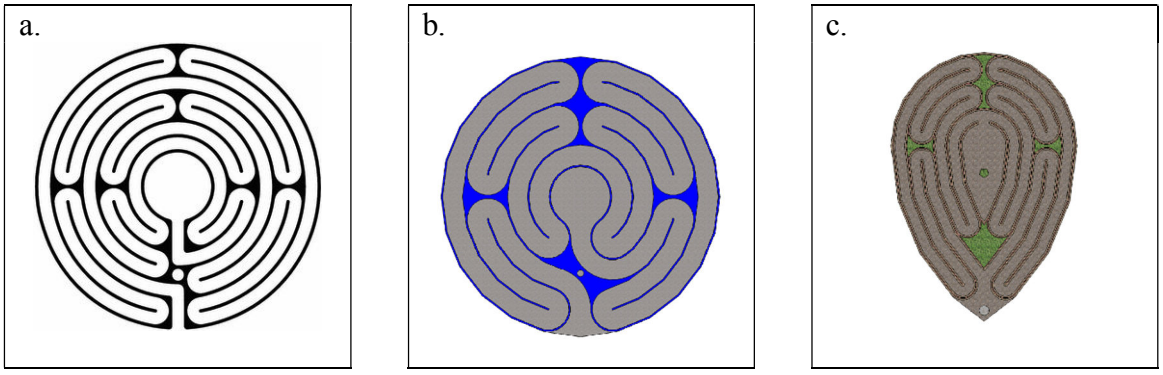


Figure 6. Labyrinth Fontanelles. a) Santa Rosa Labyrinth by Lea Goode-Harris. Source: Labyrinth Tales, Web, 16 Mar. 2015. b) Chelsea-type neo-Medieval. c) Seed labyrinth.

Center

Depending on the intended use and desired proportions, the center of the labyrinth may be the same width or wider than the rest of the path. Many contemporary labyrinth installations have an enlarged center to accommodate groups and rituals, a bench, a

basket of memorial stones, or other features. Some labyrinths, both old and new, have a tree at the center.

Symbolism, Ornamentation, and Intention

Orientation, labyrinth type, shape, embellishments, and other features may be chosen to reflect the symbolism and intentions important to those creating the labyrinth. This might be religious or secular, individual or community, and site- and/or user-specific. Labyrinths may incorporate statues, crystals, inspiring sayings or quotes, or other elements that enhance the experience or provide meaning or guidance. Focusing attention and setting an intention may be considered important aspects of both the construction and use of labyrinth spaces.

Dimensions

Depending on the chosen location, thought will have to be given to the actual dimensions of available space, or conversely, if particular dimensions are desired, the location will need to be chosen to accommodate the size of the chosen labyrinth. This is determined by path and wall width, and the number of circuits, as well as center width, which can all vary greatly among different labyrinths. This is also tied very closely to decisions regarding materials. For example, wall width could be pre-determined by a choice of a single row of bricks set on edge in a trench. A private labyrinth in someone's yard may typically only need to accommodate one person at a time and could potentially be built with a fairly narrow path. Although, they could still choose to have a wider path, if the person has mobility challenges, or they simply have the desire or money to create a larger installation. Labyrinths that are intended for group use and may have two-way

traffic—some people making their way back out while others are on their way in to the center—could be more user-friendly with wider paths. However, there are many that have narrow paths, like the one in Chartres, and people simply step out of each other's way as they walk.

Accessibility

In addition to path width, some other design features such as flat path surfaces and benches for resting can facilitate use of the labyrinth by people with mobility concerns. A bumpy path in a wooded setting can be a fun adventure for some, but impossible for others to navigate. Some labyrinths have been constructed with a lip along the edges of the path to assist people who have visual impairments. In some settings, especially indoors, where use of incense or music might be desired to enhance the experience, consideration may need to be given to people with sensory sensitivities.

Materials

Labyrinths have been created out of an astounding array of materials. The possibilities are really only limited by imagination. There are, of course, many ways to make images and objects that incorporate the designs. Small labyrinths have been found as petroglyphs, mosaics, apotropaic symbols, and manuscript diagrams or illustrations which at times have included text in the form. Finger labyrinths can be constructed out of clay, wood, glass, or metal, or printed on paper. Walking labyrinths can be made with stones, bricks, pavers, tiles, wood, earthworks, painted canvas, and more. Labyrinths can also be mowed into grass either temporarily or more permanently with garden beds,

benches, and other features. Temporary labyrinths can be made with sand, corn meal, flour, bird seed, rope, masking tape, or items to be donated to a charitable organization.

Cost

The cost of creating a labyrinth is another aspect with great variability depending on the circumstances. Many labyrinths are constructed of found materials. Some are made with inexpensive materials and built by the users themselves. Others are installed by professionals especially when pavers are involved. Fundraising is used by some organizations for larger, elaborate projects such as those at parks, churches, or hospitals.

Labyrinth Keepers

While not strictly part of the design, ongoing maintenance of the labyrinth is also an important consideration. In addition to periodic landscaping-related maintenance which in some cases may be the domain of groundskeepers or volunteers, there may also be essential knowledge of the meaning and history of the labyrinth, group protocols, and ceremonies that are best passed on personally by an individual or group invested in preserving, promoting, facilitating, and ensuring enduring use of the labyrinth.

CHAPTER FIVE

OUTCOMES

My research and creative practices have resulted in a variety of objects and installations. Less obvious might be some additional outcomes that are not artistic items, yet they are worth mentioning and sharing publicly.

Labyrinths of New England **Map**

In the process of trying to find existing labyrinths to visit, I discovered that, despite the growing lists available online, there were no comprehensive maps for locating labyrinths. I decided to create a color-coded map of labyrinths in the New England area based on the lists available on the Labyrinth Guild of New England and World-Wide Labyrinth Locator websites plus a few more that I had found in newspaper articles and by word of mouth. I eventually made this a public map on Community Walk: www.communitywalk.com/labyrinthsNE (see fig. 7).

Initially, I created this map in order to facilitate my own travel plans. However, as I met more people interested in labyrinths and explained what I was working on, some of them expressed interest in seeing the map. I eventually offered the link to both the Labyrinth Guild of New England and the World-Wide Labyrinth Locator and both websites posted the link.[3] [4] So far, the map has had over 700 views.

There are currently 239 labyrinth sites on the map, color-coded for six different categories. I have visited 54 of these locations so far, taking notes and photos. Two of the

[3] www.labyrinthguild.org/index.php/newengland/locator
[4] labyrinthlocator.com/labyrinth-links/categories/1354-usa-canada?offset=10

labyrinths were too overgrown to see or walk, one was seasonal and not open to visitors when I was there, and another I was unable to locate while I was there (but have since spotted in a satellite image and will revisit later), so I have walked 50 of them, including the two that are my own designs. I have walked some of these with other people and some of them alone, and have been able to speak with the owners and/or builders of some of the labyrinths.

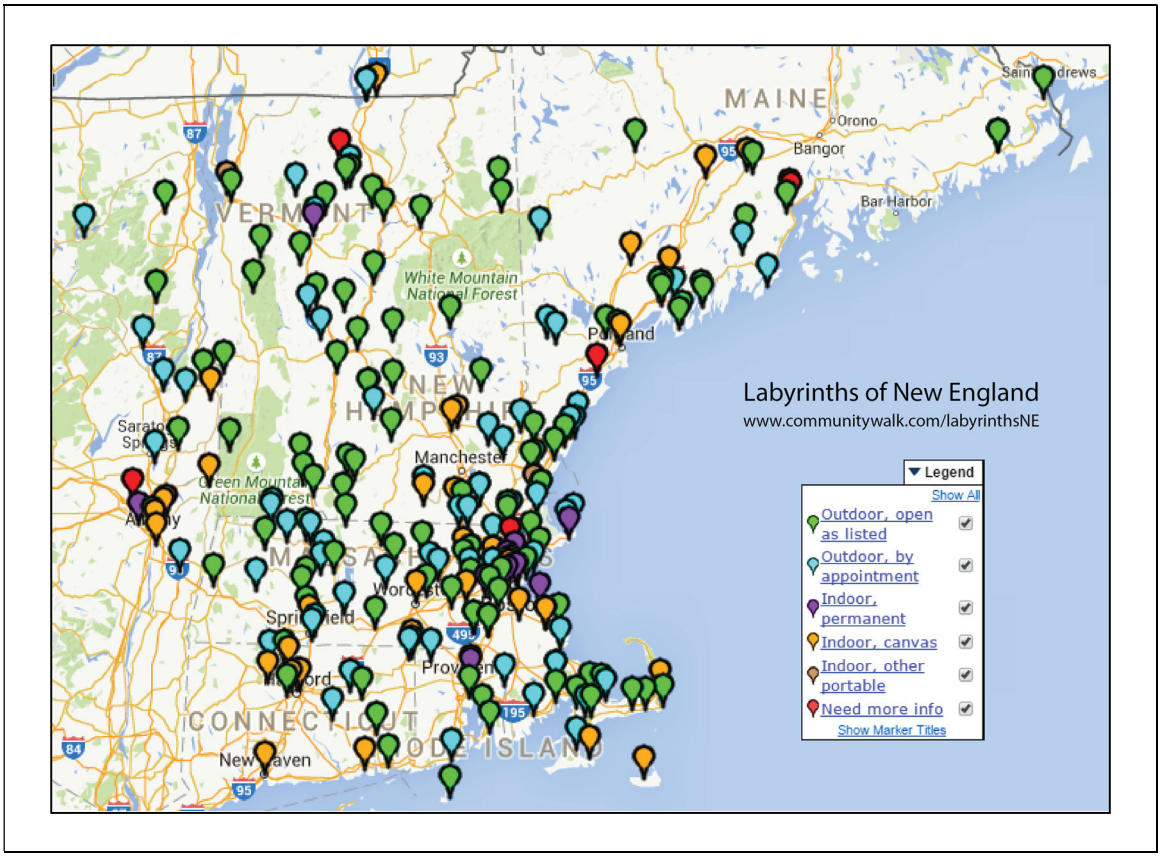


Figure 7. *Labyrinths of New England* map. Created on Community Walk website.

Researching and seeing all of these labyrinths has confirmed the endless possibilities in designing a labyrinth even when considering a single design such as the

Classical. It has also allowed me to develop my own personal preferences and an eye for potential problems or choices to avoid in my own labyrinth installations.

Personal Preferences

I have developed a fondness for Baltic and neo-Medieval designs, a slight aversion to the Chartres, and a general liking of the Classical, although there have been a few that weren't impressive. It is refreshing to see an original design, but there is also something very appealing about recognizing the tried and true ones and seeing another interpretation. I tend to prefer grass or garden labyrinths with stone edges and a bench at the center, as well as some wooded area labyrinths.

A deep layer of pea stone can make an uncomfortable walking surface. I have seen how the path can become obscured over time when the wrong materials are chosen. I have experienced multiple times how a path that is too narrow can be very distracting when walking with a group or worrisome due to losing one's balance. I avoid this in my designs. I have also noticed how thoughtful details and good upkeep can enhance and lack of details and upkeep can detract from the experience. A feature that I feel should always be in a walkable labyrinth is an enlarged center.

Labyrinth Facilitation and Philosophy

I have been interested in facilitation as well as design, and have my own labyrinth experiences (on my own and with a facilitator) to add to the research that I have done. Casual conversations, presentations, and teaching have helped me to refine my manner of

speaking about labyrinths, and creating labyrinth installations has given me additional opportunities to explain and discuss labyrinth use, history, and design.

I have developed two textual representations of ways to approach the labyrinth experience: *Opening Journey,* a labyrinth guide, and *Liminal Journey*, a text-based labyrinth. *Opening Journey* provides a framework for a labyrinth walk and encourages introspection (see fig. 8). *Liminal Journey* explores the possibility of multiple thresholds: mental, physical, emotional, and spiritual (see Portfolio chapter).

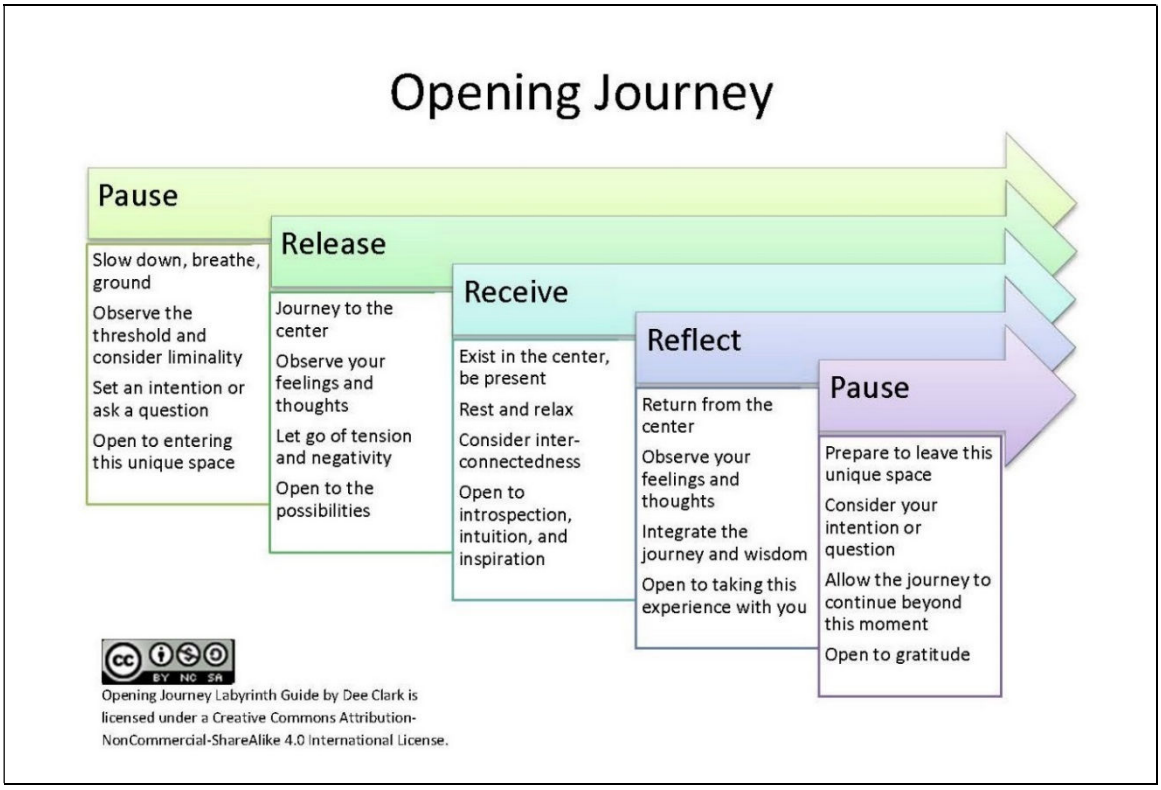


Figure 8. *Opening Journey* Labyrinth Guide.

Teaching

Over the past year, I have had multiple opportunities to share the information and experience that I have accumulated so far. In July 2014, I created a design booklet and

led a workshop on "Labyrinths as Sacred Space in Permaculture Design" at the Northeast Permaculture Convergence which was hosted by Maine that year at MOFGA. So, we were able to take advantage of the newly created South Orchard Labyrinth there, as well as creating a temporary labyrinth and a miniature model on one of the labyrinth boards that I mentioned earlier.

In April 2015, my friend the Rev. Dr. Duncan Newcomer and I were asked by Chris Glass to join him as guest lecturers for the final class meeting of his Senior College course on "The Labyrinth and Other Architectural Mysteries." Chris and I created a painted labyrinth at the University of Maine Hutchinson Center and Duncan facilitated a walk after we had each presented.

Finally, in June 2015, I led another workshop during MOFGA's Annual Farm & Homestead Day on "Labyrinths as Sacred Space in the Landscape." This was the one year anniversary of the MOFGA labyrinth, since the main construction day for it had been on Farm & Homestead Day 2014.

Labyrinth Formulas

An unexpected outcome of my labyrinth research was a brief mathematical treatise on accurately calculating the length of a 3- or 7-circuit Classical labyrinth path by solely inputting the most basic measurements: the widths of the path, walls, and center. If I recall correctly, the urge to attempt this started while preparing the layout specs for the MOFGA labyrinth installation. Beyond the essential measurements for leading the construction, I wanted to know how many square feet of garden space there would be and how long was the path to the center? I figured it out in a clunky way for what I needed at

the time, but I revisited the idea later and established formulas for both 3- and 7-circuit Classical labyrinths.

The tricky part was finding a simple formula that could still account for the multiple radius points of the true, non-concentric form of a Classical labyrinth as well as for the center sometimes being wider than the rest of the path. I had looked for path length information from several sources including professional labyrinth companies. In the end, I discovered that they were basing their calculations on concentric circles (i.e. a single radius point) which consistently results in an over-estimation of roughly 16.25% compared to any method that considers all of the half- and quarter-circle arcs from all five radius points.

In March 2015, I sat down with math professor Dr. Eisso Atzema who very pleasantly conversed with me about labyrinths, geometry, and etymology, and then confidently confirmed my formula with his own calculations. Here are the two formulas for entrance to center path length in their more user-friendly configuration (rounded rather than using π):

P = path width; W = wall width; C = center width (horizontal diameter)

3-circuit Classical labyrinth path length = 32.99(P + W) + 7.71(C - P)

7-circuit Classical labyrinth path length = 154.72(P + W) + 16(C - P)

Designs and Installations

In addition to the MOFGA, Peace Festival, and Hutchinson Center labyrinths mentioned previously, I have been working on some other designs and installations which are detailed in my portfolio. Due to my site visit experiences, I have made certain to avoid narrow paths and have considered issues of accessibility in my designs. I have encountered some challenges working with different situations, clients, sites, and materials, and have gathered and created new tools as I have worked on these projects.

Thesis Exhibit

Several different elements are combined in my thesis exhibit to represent the range of my body of work (see fig. 9). These include photographic documentation of my site visits (*Labyrinths of New England*) and major labyrinth installations as well as multiple interactive components:

- Sand table and wood labyrinth templates with instructions: participants may create their own pebble labyrinths to trace with a finger or stylus (*Liminal Play II*).
- Laser-etched satellite images on wood discs: participants may choose an image and see if they can match it with one of the photographs in the site visit montages (*Skyview Labyrinths*).
- Text labyrinth with turntable hardware: participants may interact with this exploration of the various potential thresholds of the labyrinth experience (*Liminal Journey*).

a.

b.

c.

d.

e.

Figure 9. Thesis Exhibit. University of Maine, Lord Hall Gallery, 7 Aug. 2015 through 25 Sep. 2015. a) Full exhibit. b) *Skyview Labyrinths*. c) *Liminal Play I*. d) *Liminal Journey*. e) *Liminal Play II*.

CHAPTER SIX

PORTFOLIO

The following projects, objects, images, and installations provide an overview of my creative work over the past three years. There is variety in the materials and means, however all of it is connected by threads of community, introspection, and liminality.

ESTIA Mandala Garden Permanent Installation (2012)

This raised bed garden mandala is at the ESTIA Epicenter, a permaculture demonstration and education site in Bucksport, Maine. The mandala has a stone border, sapling archway, and measures about 22′ in diameter with eight sections and a center bed (see fig. 10). This was a somewhat spontaneous, collaborative project involving ESTIA board members (including myself at that time) and other volunteers. I determined the measurements as well as orientation to the cardinal directions in case we wanted to use the space for special occasions. The circular shape of this garden space can now be seen in satellite images of the property.

a.

b.

Figure 10. ESTIA Mandala Garden. a) Some of the project volunteers. b) Finished mandala and arch.

Double Golden Ratio Infinity **Mowed Labyrinth Installation (2012)**

This was a private installation of a 60′ by 23′ double golden ratio infinity mowed labyrinth in Bowdoinham, Maine. It was inspired by Antonia Albano's *The One* which she presents as a "Divine Symbol" of balance, harmony, and unity. The golden ratio appears in the proportions of the length of each small loop to each large loop as well as the width of each loop to its own length. I informally surveyed the site, prepared sketches, and then calculated the measurements. The client and I worked together to measure and stake out the design and I mowed it (see fig. 11).

a.

b.

Figure 11. *Double Infinity* Labyrinth. a) Staked and ready to mow. b) Finished double infinity labyrinth.

Rope Labyrinth Temporary Installations (2012-2013)

Using a variety of settings and installation formats, I created several temporary, indoor and outdoor, rope labyrinths at the University of Maine as well as some additional locations (see fig. 12). These installations provided opportunities for me to make design decisions, provide facilitation, and get feedback about the experience from participants.

Figure 12. Temporary Rope Labyrinths. a) Left-hand, 5-circuit, Baltic labyrinth installation at Stodder Hall. b) Stodder Hall installation. Photo by Amy Pierce. c) Left-hand, 7-circuit Classical labyrinth installation at Stewart Quad for IMRC Open House. d) Left-hand, 5-circuit, Baltic labyrinth installation for four-day Wisdom through the Ages workshop retreat in Harpswell, Maine.

In order to use the rope over and over again for different designs, it was essential to leave it as one continuous piece, rather than cutting with measurements specific to only one design. However, labyrinth walls typically have at least four end points. Therefore, each installation by necessity included design elements that would in some way simulate additional ends to add to the two actual ends of the rope. Quite often this was done by adding a metal archway which, in addition to allowing the rope to go over the path,

creating two additional end points, also added a pleasant focal point to the center of the labyrinth installation.

***Meditations I* (2012-2013) and *Meditations III* (2014) Abstract Series**

These are two related series of tiles combining geometric and biomorphic forms. For the first series, I used geometric solids as the outer bounds of the figures (see fig. 13a). For *Meditations III*, I made labyrinth stencils to define the space in which I then drew the biomorphic forms (see fig. 13b). Both of these series are explorations of the meditative potential of related abstract shapes in ink on tile, paper, and canvas, ranging in sizes from 3″ x 3″to 9″ x 12″.

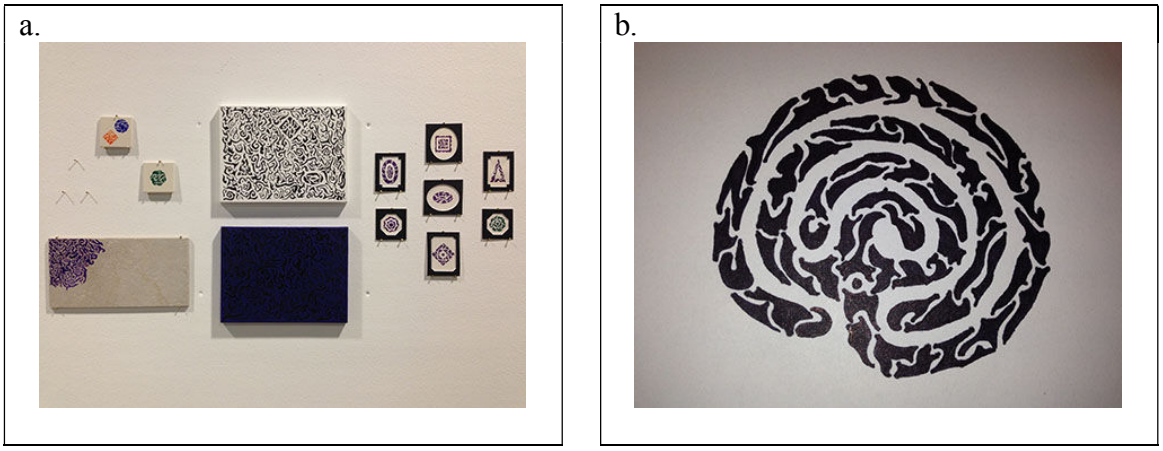


Figure 13. *Meditations I* and *III*. a) *Meditations I* on display for an IMRC Open House. b) An example from *Meditations III*.

The shapes do not represent a defined or precisely repeating vocabulary, yet they are in harmony and hint at organic elements which viewers may interpret to have literal or symbolic meaning. In contrast with mandalas which are geometric and labyrinths which have an obvious path, these meditations allow a more free-form experience and interpretation. However, like mandalas and labyrinths, they also provide an opportunity

for the viewer to be drawn in and perhaps to access the individual and collective unconscious through personal, cultural, and universal associations and archetypes.

Meditations II **Finger Labyrinth Series (2012)**

This series was an exploration of laser cutting and etching as well as labyrinth designs (see fig. 14). It was very much a learning project more than a satisfying result, particularly concerning the sensory experience, however the skills that I acquired with preparing computer files and using the machines was very helpful for later projects.

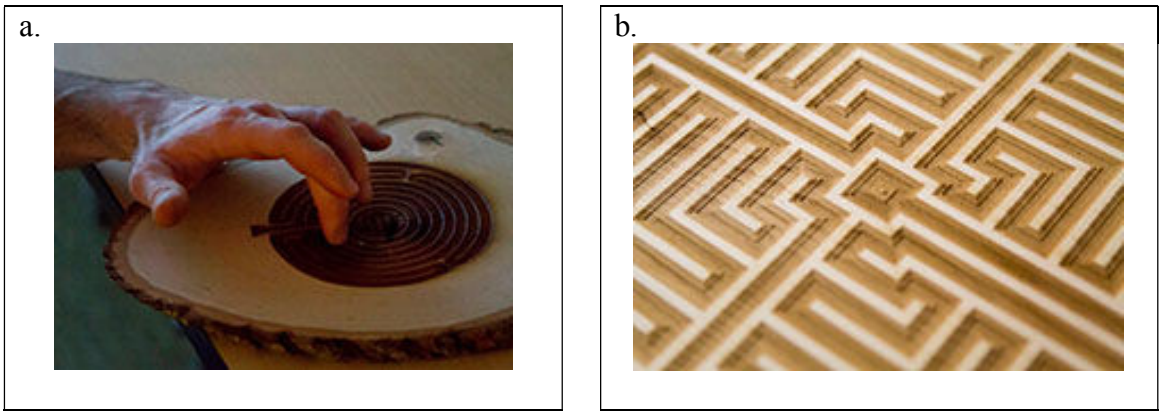


Figure 14. *Meditations II*. Photography by Amy Pierce. a) Triune labyrinth, a 7-circuit design by John Ridder of PAXworks, with the addition of a Seed of Life graphic in the center, laser cut from a prepared graphics file onto natural edge wood slice. b) Serpentine Roman labyrinth laser cut from a prepared graphics file onto natural edge wood slice.

University of Maine Snow Mandala Ephemeral Installation (2013)

This was a late night meditative exercise that turned into an amusing interaction with fellow students reveling in the clear night with a full moon overhead (see fig. 15). I wore snowshoes and only had a broad idea of what I wanted to create. I wanted to be inspired in the moment and also had not tried anything on this scale before and without a

design. I got a few uncertain looks when I was first methodically moving back and forth across the quad, but as the pattern became clearer, the looks shifted and some people commented positively on the work. One passerby came closer and then triumphantly declared to his friend, "It's art!" seemingly pleased with himself for recognizing what I was doing.

a.

b.

Figure 15. Snow Mandala. a) Stewart Quad at night. b) The next morning.

Terrell House PLLC Permaculture Design (2014)

In 2012, I proposed and co-founded the University of Maine's first on-campus permaculture demonstration and education site (building on previous work by the local permaculture community including Emily Markides, Joline Blais, myself, and others) at Terrell House, originally an energy systems experiment from the 1980s. My fellow Resident Stewards—Eileen Hagerman and Mike Emery—and I created a landscape design for the property based on permaculture principles and aesthetic considerations (see fig. 16).

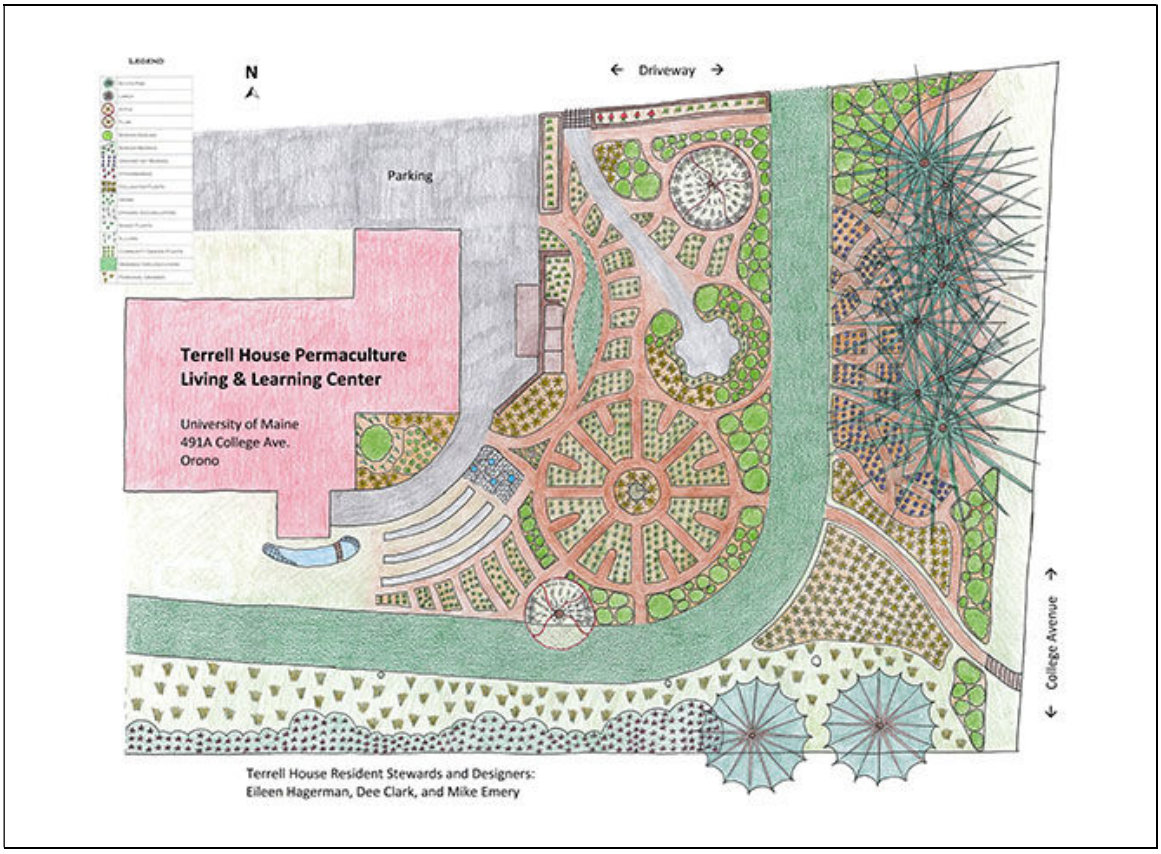


Figure 16. Terrell House Design. Final full-color, labeled permaculture design.

As we implement this design, we are transforming a quarter acre of underused lawn space into an attractive and productive foodscape. We are bringing greater biodiversity to the property through multi-purpose polycultures incorporating both annual and perennial plantings. We have deliberately avoided the 4′ x 8′ boxes often associated with community gardens and instead have chosen to create a more aesthetically pleasing design with flowing lines and beds in a variety of shapes and sizes.

Terrell House PLLC Permaculture Design Text Layer (2014)

In the process of creating the permaculture design for Terrell House, we prepared several different design layers for the various years of implementation. This inspired me

to create a "text layer" that could convey the purposes and intentions for different areas in the design in a way that is simultaneously fun, engaging, and informational (see fig. 17).

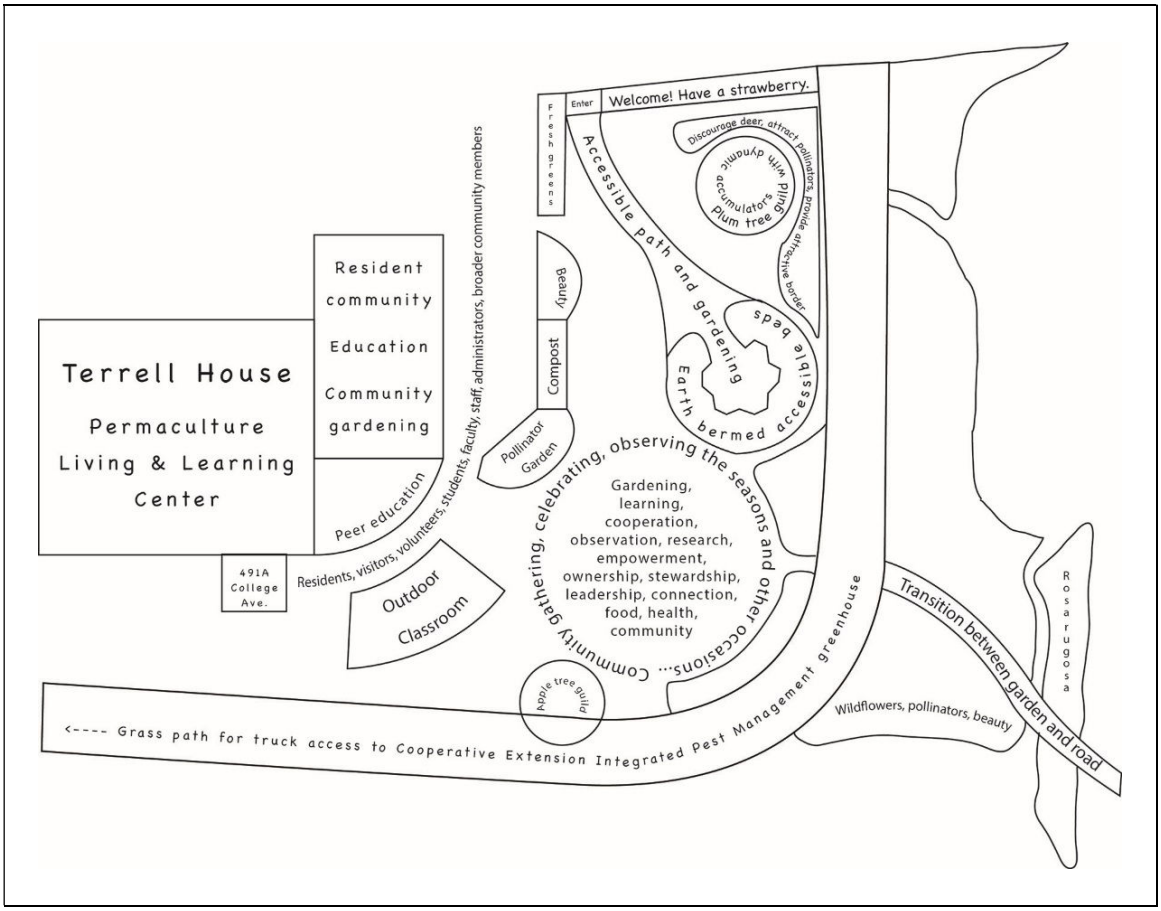


Figure 17. Terrell House Text Layer. Adobe Illustrator file using type path tools..

Terrell House PLLC Permaculture Permanent Installation (2014-2018)

R.W. Estela, who helped to build Terrell House, is also a pilot and aerial photographer, so we were fortunate to be able to see this project unfold from this fantastic perspective (see fig. 18). The transformation of a large area such as this and seeing what was on paper take shape on the ground is exciting. Over the past two years, we have added over 40 cubic yards of university compost plus manure, loam, fruit trees, berries,

shrubs, container beds, an arbor, and other perennial and annual plantings to create this unique community garden that features a 30′ diameter mandala.

Figure 18. Terrell House Aerial Photos. Photography by R.W. Estela. a) Spring 2014 before construction of mandala community garden. b) Spring 2014 after construction of mandala community garden. c) Summer 2014 after addition of border beds and some planting. d) Summer 2014 after initial shaping of the future wheelchair-accessible garden berm.

Liminal Journey **Turntable Text Labyrinth (2014)**

This project was both a philosophical exploration of thresholds and an experiment in a different way to physically engage with a labyrinth (see fig. 19). Inspired in part by images of Medieval manuscript labyrinths, I wanted to create a text that would run along the path of the labyrinth and be viewed by a smooth rotation of a whole unit rather than

an awkward angling of both a page and the viewer's neck and head. The end result also provided an intriguing motion of the hand guiding the turntable to bring the next part of the text into view.

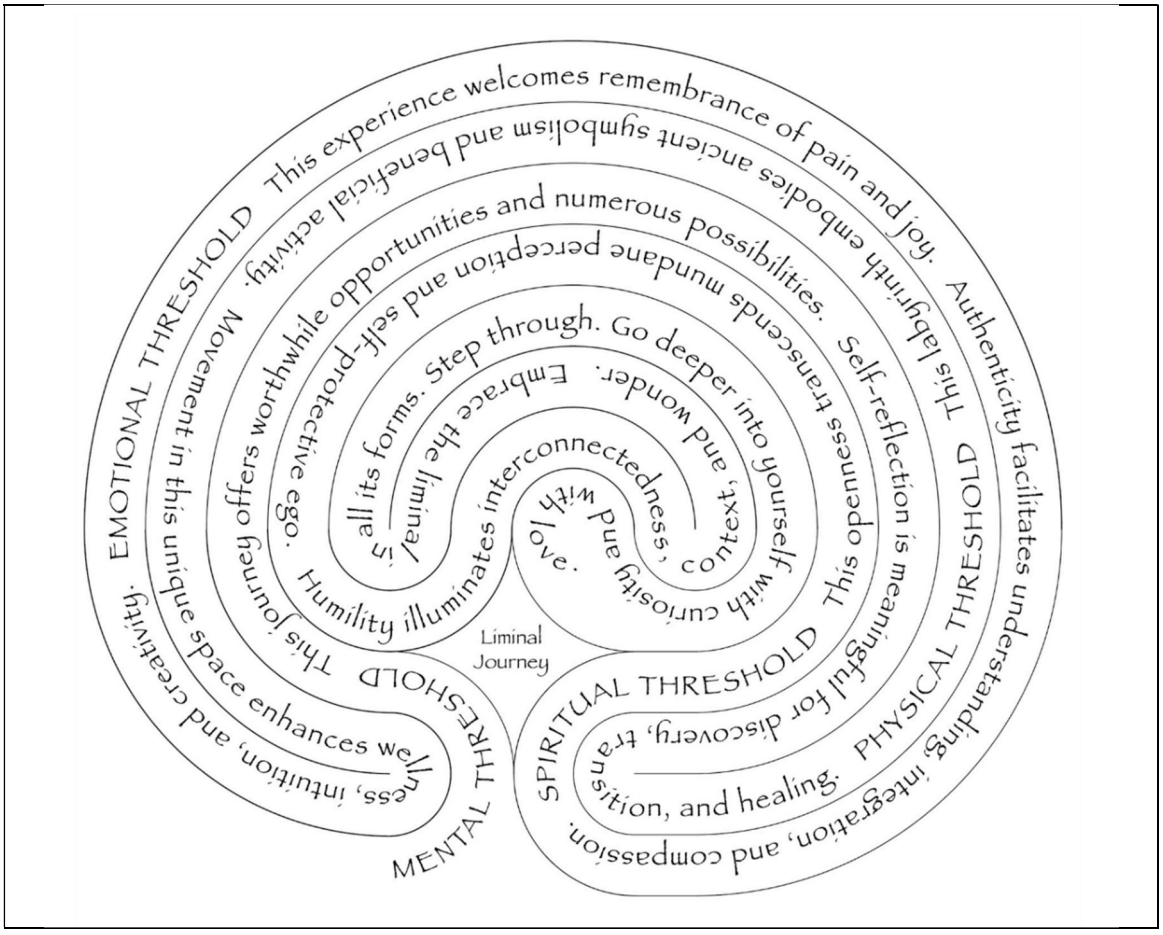


Figure 19. *Liminal Journey* Text Labyrinth. Adobe Illustrator file using type path tools.

UUCR Ferry Beach Sand Labyrinth Ephemeral Installation (2014)

This labyrinth was created for use during an annual church retreat (see fig. 20). It was another learning experience since I had not worked with sand like this before, but it turned out well. I suspect that working in the deeper, drier sand like this is different,

likely harder, than working on the flat, wet sand. However, I wanted it to last as long as possible, so I chose to work farther away from the water.

Figure 20. Sand Labyrinth. Photography by Andy Gatchell.

Sacred Circle Dance Scarves Labyrinth Temporary Installation (2014)

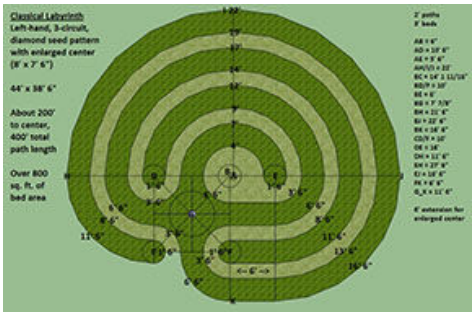
I have occasionally participated in sacred circle dance gatherings in Maine and Massachusetts. Two friends who lead the Bath area group, Leigh Kelly-Monroe and Paul Monroe, were the first people to join me on a labyrinth site visit adventure. Subsequent conversations led to some creative collaboration and we decided to combine labyrinths and sacred circle dance (see fig. 21). While many sacred dances are done in a circle, some are danced in a snaking line which makes it possible to move along a labyrinth path while dancing.

Figure 21. Scarf Labyrinth. Temporary installation at Bath Dance Works.

MOFGA *South Orchard Garden Labyrinth* Permanent Installation (2014)

This is a custom design that I made for a collaborative project with Rose Swan and Jack Kertesz at the MOFGA/Common Ground Country Fair grounds in Unity, Maine. It is a left-hand, 3-circuit, classical design, 46′ x 46′, with an enlarged center (8′ diameter), a 2′ wide grass path, and 3′ wide garden bed walls with perennial plantings and pear trees (see fig. 22). I was the lead designer and one of about a dozen construction volunteers for this permanent labyrinth installation. Most of the initial work for this project was done in June 2014 with some additional work done in early September in preparation for the 2014 Common Ground Country Fair. An estimated 65,000 people attended the fair over the weekend of September 19-21 which made this a very visible project. Annual upkeep and additional plantings were part of MOFGA's 2015 Farm & Homestead Day volunteer activities. The labyrinth can now be seen in Google satellite images.

a.



b.

c.

Figure 22. MOFGA Labyrinth. a) Labyrinth design with dimensions, construction measurements, and other design information, b) Some of the volunteers. c) The finished garden labyrinth as of 2014.

In April 2014, I was looking online for labyrinth related things in Maine and came across an event at the Coastal Maine Botanical Gardens. I wasn't able to go, but I got in touch with the speaker, Duncan Newcomer, a retired UCC minister who moved to Belfast the previous year. He is a writer and experienced labyrinth facilitator. We met in May 2014 and talked for a couple of hours. We both felt that we could end up working together on some projects. Later, he mentioned that a woman named Rose was trying to find a place to have a labyrinth made with a large number of perennial plants that she

wanted to donate. Duncan thought that a church in Belfast was interested, but that seemed to fizzle and Rose moved on.

Meanwhile, I was trying to think of places where I could offer to design a labyrinth and I sent an email to the landscape coordinator at MOFGA. Later that same day, someone else from MOFGA called me, excited to hear about my email, and eager to discuss the possibility. He turned out to be Jack, whom I had met before, and he started telling me about this woman who had donated a whole truckload of perennials with the preference that they be used in a labyrinth… It was Rose and we had come full circle.

So, I met with Jack, Rose, and a couple of other people at MOFGA. We looked at the site Jack had picked and the plants all sitting in the shade in burlap. This was in the south orchard in a sparsely planted area with some young pear trees which could be transplanted, if necessary, but hopefully could be worked into the design. I had prepared a printout of design suggestions and examples photographs from other garden labyrinths and we chose the 3-circuit Classical. We did a quick layout with my labyrinth rope to get a feel for it in the space. I went home and made a detailed design template with measurements and other specs. MOFGA Farm & Homestead Day was the next week, so we planned to have creating the labyrinth as one of the volunteer projects for that day.

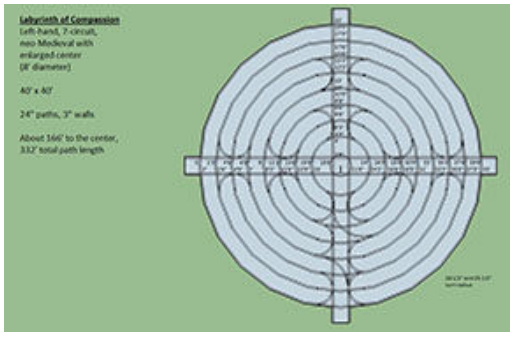
We met again the next week to lay out the design. This was a much more involved process than any of my previous labyrinths. We again used the rope, but this time with numerous stakes and multiple tape measures laid out to make it as precise as possible since we would be cutting sod. We also had to re-do it a couple of times in order to accommodate the pear trees. In the end, none of them had to be transplanted. On Farm

& Homestead Day, we had a total of about a dozen volunteers over the course of the day. It was a labor intensive, but very satisfying process for everyone involved. It was impressive how much work was done and how the area was transformed. Even so, it was a little difficult to imagine the full transformation, since the plants were droopy from sitting in the burlap and being transplanted and none of them were yet in bloom. I went back a month later and was thrilled by the perky plants in full bloom.

Labyrinth of Compassion **Temporary Installation (2014)**

This is a custom design that I made for a collaborative project with Kate Wing and Rev. Dr. Duncan Newcomer at First Church, UCC, in Belfast, Maine for the first annual Belfast Peace Festival. It is a left-hand, 7-circuit, neo-Medieval design—adapted from the World Peace Labyrinth created by John Ridder for the 2002 Winter Olympics—40′ x 40′, with an enlarged center (8′ diameter), a 2′ wide grass path, and 3″ wide walls (see fig. 23).

a.



b.

Figure 23. Belfast Peace Festival Labyrinth. a) Labyrinth design with dimensions, construction measurements, and other design information, b) The finished temporary labyrinth.

Planning for this project took place in July and August 2014 and the temporary installation was created September 4-5. The concept was initiated by a small group of community volunteers and I was asked to help with the design and construction. I prepared the detailed layout plan and worked with other volunteers to measure, stake, and create the labyrinth with burlap strips, stones, shells, and sections of a tree that had previously been cut down in the installation area. During the event, WERU broadcast live from near the labyrinth and the project was mentioned on air.

As part of the festival, the Belfast City Council presented their Proclamation for a Compassionate City and intention to participate in the international Compassionate Communities Initiative. In conjunction with this announcement, we placed compassion- and peace-related quotes along the path of the labyrinth. The temporary installation was originally intended to remain in place only for the weekend of the festival (9/5-6). However, it had such an impact on the community that the labyrinth was maintained for five weeks and led to ongoing discussions of creating a permanent installation in Belfast.

Meditations IV **(2014-2015)**

This series is a more interactive, three-dimensional iteration of labyrinth stencils, compared to *Meditations III*. I used a laser cutter to make wooden labyrinth templates that are placed on sand in a box. The labyrinth shape can then be created with small stones and traced in the sand with a finger or stylus (see fig. 24). In some cases, I have also added natural sounds such as waves on a beach to enhance the experience. While the meditation tiles (*Meditations I and III*) primarily prompt visual engagement, these boxes explore sensory engagement particularly through tactile interaction and sound.

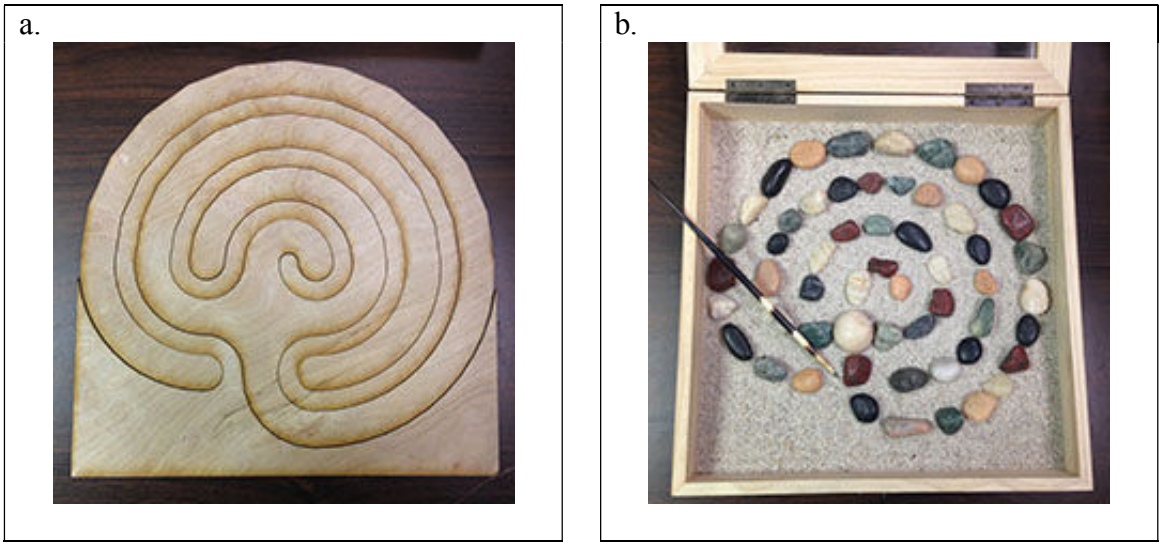


Figure 24. *Meditations IV*/*Liminal Play I*. a) Laser-cut wood labyrinth template. b) Stone labyrinth formed with template and porcupine quill for a tracing stylus.

***Liminal Play I* and *II* (2014-2015)**

Most of the trays and boxes that I have used for *Meditations IV* are open on top. However, one box has a wood and glass lid with a latch (see fig. 24b). Placing this object in a gallery may create confusion and curiosity: uncertainty about whether or not the audience is meant to open the box and interact with the labyrinth. I have included this in my thesis exhibit as *Liminal Play I* with another, more obviously interactive, counterpart. The second piece, *Liminal Play II*, is a 2′ x 6′ sand tray table, with a 1″ layer of sand, labyrinth templates, pebbles, wood styluses, and a metal sieve for gathering up the pebbles. It is an invitation for the audience to experience tactile meditation.

There are actually two different types of templates for *Liminal Play II*. Templates with a square perimeter have all of the wall areas cut out. When placed on the sand, they allow a person to fill in the walls with pebbles and then remove the template and trace the path with a finger or stylus. Templates with a round perimeter provide the walls, so that

they can be placed on the sand and immediately traced with a stylus. An instructional label helps with this complexity, but may be ignored or unnoticed by some people, resulting in possible chaos, confusion, creativity, and other interactions. The audience may also create designs without templates or simply play in the sand.

Hutchinson Center Painted Labyrinth Installation (2015)

This is a custom design that I made for a collaborative project with Chris Glass and Rev. Dr. Duncan Newcomer at University of Maine Hutchinson Center, Belfast, Maine for a Senior College course, "The Labyrinth and Other Architectural Mysteries," taught by Chris, as well as for ongoing public use. It is a left-hand, 5-circuit, neo-Medieval design, 42′ x 42′, with an enlarged center (9′ diameter), a 3′ wide path, and 3″ spray painted walls on pavement (see fig. 25). Chris and I each had particular preferences for various design details—such as a continuous outer circuit, enlarged center, and a path wide enough to accommodate a wheelchair or walker—which guided the design process.

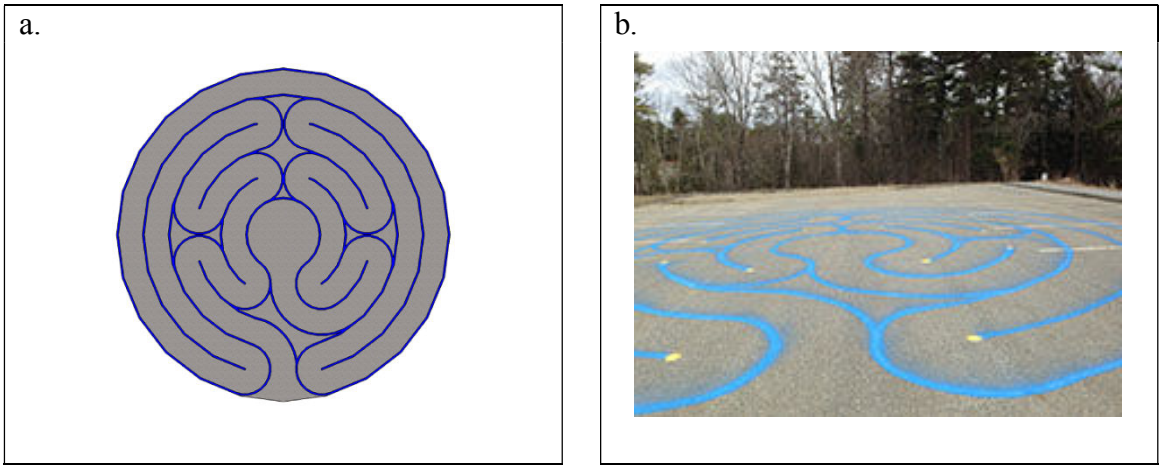


Figure 25. Belfast Hutchinson Center Labyrinth. a) Computer model of the custom labyrinth design. b) Completed painted labyrinth.

Riverland Living Arts Center Labyrinth Permanent Installation (2015)

This is an original design that I created for a collaborative project with Elizabeth Derecktor and Janet Moller at Riverland Living Arts Center in Whitefield, Maine. It is a large contemporary design, 60′ x 70′, based on meanders with a spiral to an enlarged center (11′ diameter), with a 2′ wide grass path, and 18″ wide walls which may be converted to earthworks over time (see fig. 26).

This labyrinth embraces sacred geometry and symbolism with intuitive placement and design on the land, layered shapes, crystals, statues, and philosophical overlay. This is a very large and ambitious project that will take time to fully implement.

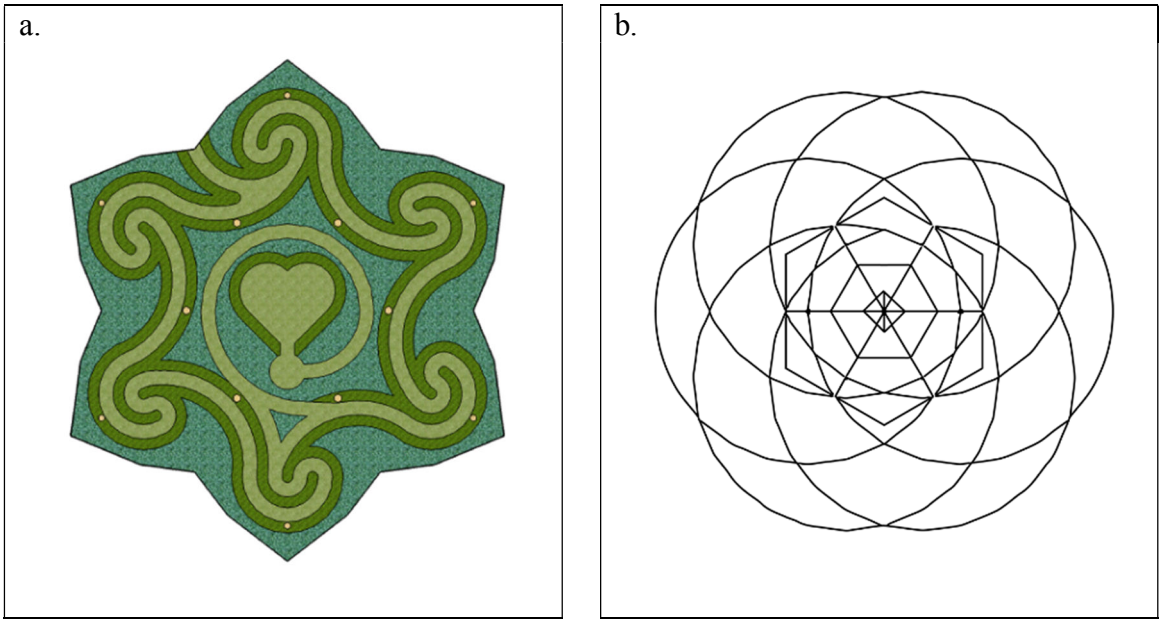


Figure 26. Riverland Living Arts Center Labyrinth. a) Computer model of the custom labyrinth design. b) Overlaid geometric shapes in the design.

Quigg Island Seed Labyrinth **Permanent Installation (2015)**

This is an original, contemporary design that I created for a private client in Liberty, Maine. It is a dual-direction, 5-circuit design, 38′ x 55′, with an enlarged and elongated center (9′ x 20′), a 2′ path, and 9″ walls (see fig. 27). The layout was done initially with burlap strips, but is being re-marked with lime and will be converted to permanent materials over time. The consultation with this client brought together much of what I have learned over the past three years. We discussed his intentions for the labyrinth, personal beliefs, and structural preferences to inform the design process.

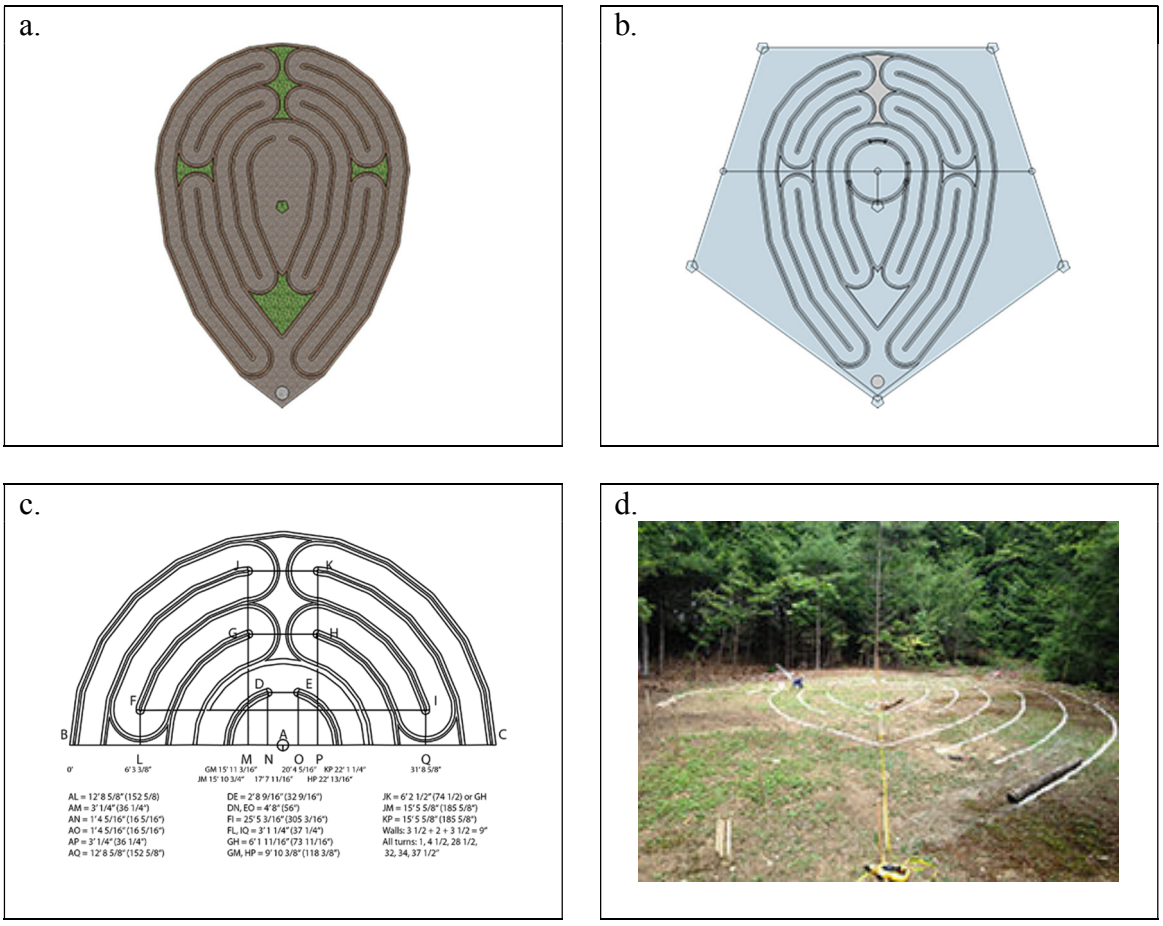


Figure 27. *Seed Labyrinth*. a) Computer model of the custom labyrinth design. b) Overlaid geometry in the design. c) Detailed top layout with measurements. d) The beginnings of the installation.

***Skyview Labyrinths* (2015)**

Over the past three years, I have been fascinated with aerial photos and satellite images that I have encountered in the course of my research and creative work. I have also enjoyed laser cutting and engraving, and at some point I decided to combine the two together along with my *Labyrinths of New England* project. I took satellite images of labyrinths that I have visited and engraved them onto wood discs (see fig. 28). I experimented with different sizes and prefer discs that are 3″ in diameter. On the back of each, I also engraved the labyrinth's location and the date that I visited.

Figure 28. *Skyview Labyrinth*. Modified satellite image engraved on wood disc, St. Anne Shrine, Fiskdale, MA. Original satellite image from Google Maps.

Labyrinths of New England **Photo Montages (2015)**

I chose one photo from each of 45 of the 54 labyrinth sites that I visited and assembled them into a format that can be presented not only in my thesis exhibit, but also for future workshops and presentations (see fig. 29).

Figure 29. *Labyrinths of New England*. First of three photo montages.

CHAPTER SEVEN

CONCLUSIONS

Labyrinths are uniquely pluralistic, beneficial, constructed spaces, the potential of which can be maximized by utilizing refined design and installation processes that incorporate both practical and esoteric elements of this liminal aesthetic environment. A designer or facilitator cannot guarantee any particular experience to anyone walking a labyrinth, however they can help to ensure the greatest potential for a beneficial labyrinth experience. The various benefits from labyrinths may be physical, psychological, spiritual, or social and may range from introspective, personal engagement to community-building interactions anywhere in the process from design and construction to facilitation, walking, and ceremony.

While a subset of labyrinth walkers might be interested in the design process, the overlaid geometric shapes and their meanings, the history of labyrinths, or other background details, it seems that the most effective approach to providing a good labyrinth experience is an unobtrusive yet essential attention to detail. Accurate geometry is important. It is worth taking the time to do it right, not to computerized perfection, but to smooth, undistracting architectural lines. A clear view of the entire path and/or a verbal or written indication that this is not a maze, challenge, or confusing situation, combined with some encouragement to slow down and attend to one's breathing, helps to ensure that a relaxation response, rather than stress, will be triggered (Sternberg 107-9). Although, some people, especially children, also enjoy moving quickly through a labyrinth, even to the point of running the path.

I have not gone into much detail about rituals and facilitating spiritual experiences for several reasons. They can be tremendously varied, deeply personal, and customized to specific individuals or groups. I will say that in terms of design, ceremony does in some ways have counterparts to the more tangible construction details. Sacred space is architecturally defined—indications are given that this here is somehow different from that ordinary space over there—and can be amplified with sacred geometry, embellished with ornamentation, and created and cared for with special attention, intention, and mindfulness. Likewise, sacred time is defined structurally and amplified by words, gestures, and behaviors, and can be embellished with sounds, clothing, foods, or other special items. Just as a labyrinth designer considers the many features and choices most appropriate for a given situation, a labyrinth facilitator considers the many details of ambiance, group dynamics, mood, and flow (traffic and timing) to guide and support the labyrinth experience.

In the course of my research, site visits, and design work, I have not encountered as much discussion of labyrinth thresholds and fontanelles as other features, so I am pleased to have brought attention to these. I am proud of my two most apparent contributions to the field: the path length formulas and the *Labyrinths of New England* interactive online map. I am honored to have helped create a permanent labyrinth installation at MOFGA, an iconic Maine institution.

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APPENDIX

PERMANENT LABYRINTH SITES VISITED

6/22/2012

1. Sirius Community, Shutesbury, MA

10/27/2012

2. Wellesley Congregational Village Church, Wellesley, MA

6/16/2013

3. Learning and Recovery Center at Sweetser, Brunswick, ME
4. White Pine Holistic Medicine Center, Brunswick, ME
5. Topsham, ME

6/22/2013

6. Edwards Church, Framingham, MA
7. St. Paul's Episcopal Church, Hopkinton, MA
8. St. Anne Shrine, Fiskdale, MA
9. Blue Star Equiculture, Palmer, MA

6/23/2013

10. Sisters of St. Joseph (Mont Marie), Holyoke, MA
11. Longmeadow, MA
12. Unitarian Universalist Society of Greater Springfield, MA
13. Blue Guitar Dance Studio, Easthampton, MA
14. InResonance, Northampton, MA

6/25/2013

Revisited Sirius Community, Shutesbury, MA

6/26/2013

15. Pioneer Valley Cohousing, Amherst, MA
16. Circle of Zodiacal Light, Leverett, MA
17. Greenfield Community College, Greenfield, MA
18. Johnson Hill Farm, Buckland, MA

6/27/2013

19. Cauldron Farm, Hubbardston, MA

6/29/2013

20. Church of Our Redeemer, Lexington, MA

6/30/2013

21. Lutheran Church of Our Redeemer, Foxboro, MA
22. First Universalist Society in Franklin, MA

7/18/2013

23. Chatham Clergy Assoc. Labyrinth at Chase Park, Chatham, MA
24. Evensong Retreat & Spirituality Center, Harwich, MA
25. St. David's Episcopal Church, South Yarmouth, MA
26. Giving Tree Jewelry, East Sandwich, MA
27. Quashnet Elementary School, Mashpee, MA
28. The Labyrinth House B&B, Cataumet, MA
29. Linden Hill, Wareham, MA

7/19/2013

30. Simply Soothing Sanctuary, Kingston, MA

31. Saint Christine's Parish, Marshfield, MA

8/15/2013

32. Pottle Tree Farm, Perry, ME

33. University of Maine at Machias, ME (A)

34. University of Maine at Machias, ME (B)

10/26/2013

35. Merrimack College, North Andover, MA

36. St. Paul's Episcopal Church, North Andover, MA

37. Rolling Ridge Retreat and Conference Center, North Andover, MA (A)

38. Rolling Ridge Retreat and Conference Center, North Andover, MA (B)

11/16/2013

39. The Center at Westwoods, Westwood, MA

5/10/2014

40. St. John's Preparatory School, Danvers, MA

41. Church of St. Andrew, Marblehead, MA

5/11/2014

42. Seacoast Hospice, Exeter, NH

43. Christ Church Episcopal, Exeter, NH

44. Christ Episcopal Church, Portsmouth, NH

45. Kittery, ME

5/19/2014

46. Belfast, ME

6/10/2014 and 6/14/2014 (see Intermedia Portfolio)

47. MOFGA/Common Ground Fair Grounds, Unity, ME (initial installation)

6/26/2014

48. Armenian Heritage Park, Boston, MA

8/5/2014 and 9/20/2014 (see Intermedia Portfolio)

Revisited MOFGA/Common Ground Fair Grounds, Unity, ME

10/13/2014

49. Washington, ME

10/20/2014

50. Farmington, ME

51. Gorham, NH

52. Hilltop Handspun, Lovell, ME

4/28/2015 and 4/30/2015 (see Intermedia Portfolio)

53. University of Maine Hutchinson Center, Belfast, ME (installation, class, walk)

5/3/2015 (see Intermedia Portfolio)

Revisited MOFGA/Common Ground Fair Grounds, Unity, ME

5/25/2015

54. Coastal Maine Botanical Gardens, Boothbay, ME

6/13/2015 (see Intermedia Portfolio)

Revisited MOFGA/Common Ground Fair Grounds, Unity, ME (additional work)

BIOGRAPHY OF THE AUTHOR

Yadina Clark is an intermedia artist creating liminal aesthetic environments, regenerative landscapes, and community-building opportunities, especially through temporary and permanent labyrinth installations and permaculture design and implementation. She has also taught, composed, and performed music for over 25 years. She was born in Pittsburgh in 1970, raised in midcoast Maine, and graduated from Lincoln Academy in Newcastle, Maine. After starting college in South Carolina, she returned to Maine and received a Bachelor of University Studies in music, psychology, and peace studies from the University of Maine in 2007. Her interdisciplinary program encompassed music theory, composition, and performance, social and environmental psychology, intentional community, and permaculture design. In 2012, she proposed and co-founded Terrell House Permaculture Living & Learning Center, the first on-campus permaculture site at the University of Maine. Yadina is a candidate for the Master of Fine Arts degree in Intermedia from the University of Maine in August 2015.